Office of Vocational
Rehabilitation

1509

Annual Report
of the
Federal Security Agency

1947

HD 7123
.U1 1947

M.C. MIGEL LIBRARY
AMERICAN PRINTING
HOUSE FOR THE BLIND

Annual Report
of the
Federal Security Agency

FOR THE FISCAL YEAR
1947

48834-MIGEL-A

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1948

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.
Price $1.75

FEDERAL SECURITY AGENCY

Watson B. Miller, *Administrator*
Maurice Collins, *Assistant Administrator*

OFFICE OF THE ADMINISTRATOR

Watson B. Miller	*Administrator*
Maurice Collins	*Assistant Administrator*
Leo L. Miller	*Executive Assistant to the Administrator*
Mary E. Switzer	*Assistant to the Administrator*
Harry N. Rosenfield	*Assistant to the Administrator*
Jack B. Tate	*General Counsel*
Thomas J. Woofter	*Director of Research*
Zilpha C. Franklin	*Director of Information*
Ellen S. Woodward	*Director of Inter-Agency and International Relations*
George E. Bigge	*Director of Federal-State Relations*

SOCIAL SECURITY ADMINISTRATION

Arthur J. Altmeyer	*Commissioner for Social Security*
William L. Mitchell	*Deputy Commissioner for Social Security*
Oscar C. Pogge	*Director, Bureau of Old-Age and Survivors Insurance*
R. G. Wagenet	*Director, Bureau of Employment Security*
Jane M. Hoey	*Director, Bureau of Public Assistance*
Katharine F. Lenroot	*Director, Children's Bureau*
Joseph E. McElvain	*Chairman, Appeals Council*

EDUCATIONAL AFFAIRS

John W. Studebaker	*Commissioner of Education*
A. C. Ellis	*Superintendent, American Printing House for the Blind*
Leonard Elstad	*President, Columbia Institution for the Deaf*
Mordecai W. Johnson	*President, Howard University*

HEALTH AND MEDICAL CARE

Thomas Parran	*Surgeon General, Public Health Service*
James A. Crabtree	*Deputy Surgeon General, Public Health Service*
Rolla E. Dyer	*Director, National Institute of Health*
R. C. Williams	*Chief, Bureau of Medical Services*
C. L. Williams	*Chief, Bureau of State Services*
Charles E. Burbridge	*Superintendent, Freedmen's Hospital*
Winfred Overholser	*Superintendent, Saint Elizabeths Hospital*

SPECIAL SERVICES

Jewell Swofford	*Commissioner for Special Services*
Dean Snyder	*Deputy Commissioner for Special Services*
Paul B. Dunbar	*Commissioner of Food and Drugs*
William McCauley	*Director, Bureau of Employees' Compensation*
Michael Shortley	*Director, Office of Vocational Rehabilitation*
Henry C. Iler	*Chairman, Employees' Compensation Appeals Board*

LETTER OF TRANSMITTAL

FEDERAL SECURITY AGENCY,
Washington, D. C., October 1, 1947.

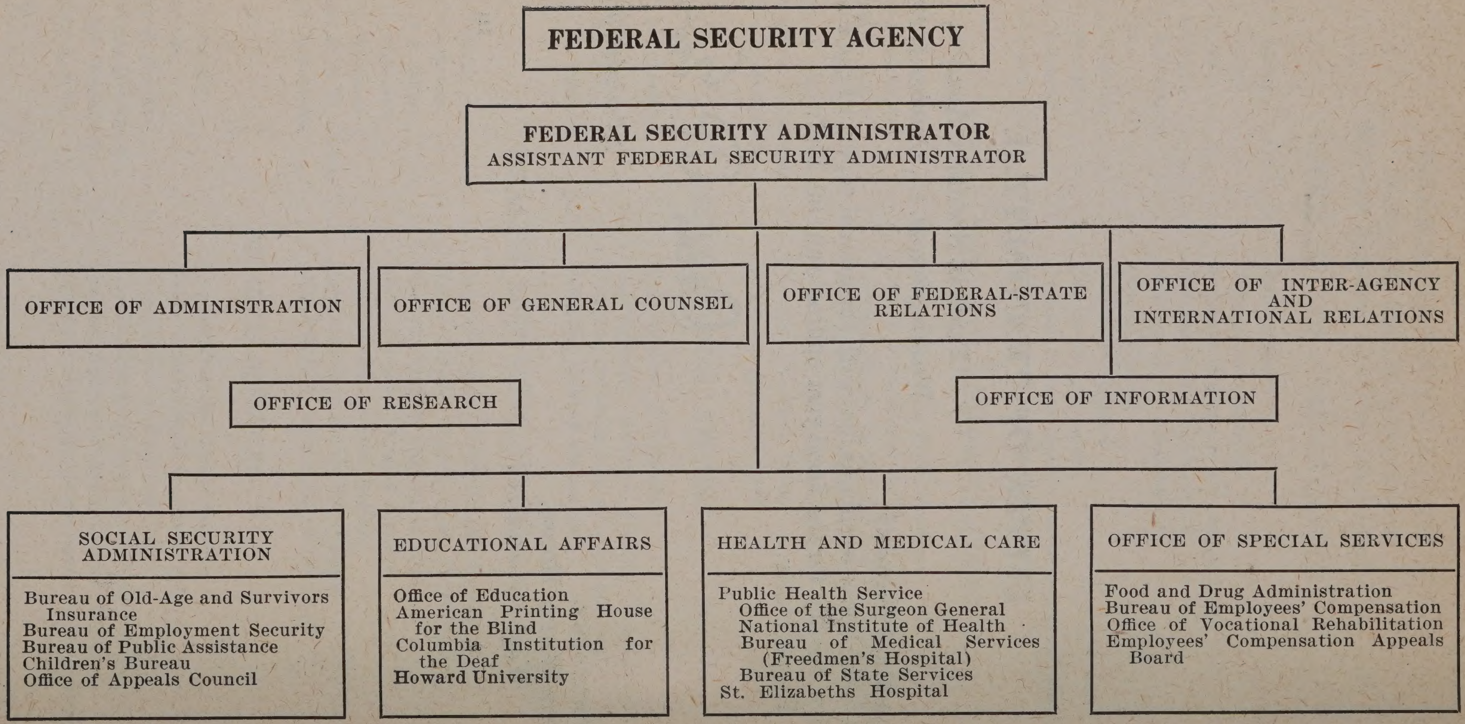
DEAR MR. PRESIDENT:

I have the honor to submit herewith the annual report of the Federal Security Agency for the fiscal year ending June 30, 1947.

Respectfully,

Oscar R. Ewing
Administrator.

THE PRESIDENT,
THE WHITE HOUSE,
Washington, D. C.


FEDERAL SECURITY AGENCY
FEDERAL SECURITY ADMINISTRATOR
ASSISTANT FEDERAL SECURITY ADMINISTRATOR
OFFICE OF ADMINISTRATION
OFFICE OF GENERAL COUNSEL
OFFICE OF FEDERAL-STATE RELATIONS
OFFICE OF INTER-AGENCY AND INTERNATIONAL RELATIONS
OFFICE OF RESEARCH
OFFICE OF INFORMATION
SOCIAL SECURITY ADMINISTRATION
Bureau of Old-Age and Survivors Insurance
Bureau of Employment Security
Bureau of Public Assistance
Children's Bureau
Office of Appeals Council
EDUCATIONAL AFFAIRS
Office of Education
American Printing House for the Blind
Columbia Institution for the Deaf
Howard University
HEALTH AND MEDICAL CARE
Public Health Service
Office of the Surgeon General
National Institute of Health
Bureau of Medical Services (Freedmen's Hospital)
Bureau of State Services
St. Elizabeths Hospital
OFFICE OF SPECIAL SERVICES
Food and Drug Administration
Bureau of Employees' Compensation
Office of Vocational Rehabilitation
Employees' Compensation Appeals Board

CONTENTS

Page
Letter of Transmittal III
Foreword XV

SECTION 1—SOCIAL SECURITY ADMINISTRATION

Social Security Looks Ahead 1
  The need for present action 3
  Summary of recommendations 9
    A comprehensive program of social security 9
    Old-age and survivors insurance 10
    Unemployment insurance 11
    Disability insurance 12
    Medical care insurance 12
    Public assistance and welfare services 12
    Children's services and research in child life 13
    Interrelationships of social insurance programs 14
  Social security risks and resources in 1946–47 16
    Unemployment 17
    Old age 18
    Death of the family earner 20
    Disability 21
    Medical care 23
Old-Age and Survivors Insurance 27
  Old-age and survivors insurance in 1946–47 27
    Amendments of 1946 27
    Workers and their wage credits 30
    Insurance status 31
    Applicants for account numbers 32
    Beneficiaries and their benefits 32
    Appeals 35
    Administrative developments 35
    Administrative costs 37
    Financing the program 38
  Improving the program 39
    Extension of coverage 39
      Self-employment 40
      Farm and household labor 43
      Employment by nonprofit organizations 45
      Federal civilian employment 46
      State and local government employment 47
      Military service 49
      Railroad employment 50
      Problems of piecemeal extension 50
    Benefit changes and other proposed modifications 51
      Benefit formula and wage base 51
      Maximum family benefits 52

Old-Age and Survivors Insurance--Continued
  Improving the program—Continued
    Benefit changes and other proposed modifications—Continued Page
      Suspension of benefits for employment 52
      Age of eligibility for women 53
      Legal status of wife and widow 53
      Mother's insurance benefits 54
      Child's benefits 54
      Lump-sum payments 55
      Definition of wages 56
    Further modifications under extended coverage 56
      Eligibility requirements 57
      Average monthly wage 58
      Minimum benefit 58
    Cash benefits for extended disability 59
    Financing an expanded program 63
Unemployment Insurance 64
  Unemployment insurance in 1946–47 66
    Covered workers 66
      Maritime workers 66
      Other groups 68
    Claims and benefit payments 68
      Claims 68
      Interstate claims 69
      Time lapse in benefit payments 70
      Benefit payments 70
      Amount and duration of benefits 70
    Eligibility and disqualification 73
      Availability for work 73
      Extent and type of disqualification 74
    Appeals 75
    Financing benefit costs 76
      Funds available for benefits 76
      Experience rating 77
    Financing administrative costs 79
    Temporary disability insurance coordinated with unemployment insurance 80
    Other aspects of Federal-State administration 81
      Relations with the employment service 81
      Legislative advice 82
      Development of a sound benefit formula without wage records 82
      Interpretive work 83
      Operating problems 83
      Coordination and dissemination of information 84
  Improving unemployment insurance 85
    Coverage 85
    Financing benefit costs 86
    Financing administrative costs 89
    The Nation's stake in unemployment insurance 91
Public Assistance 95
  Public assistance in 1946–47 96
    Administrative steps to implement amendments 96
    Effects of reconversion and amendments on assistance 97

Public Assistance—Continued

Public assistance in 1946–47—Continued

Page
Recipients and their payments 99
  Old-age assistance 99
  Aid to dependent children 100
  Aid to the blind 102
  General assistance 103
  Civilian war assistance 104
Financing public assistance 104
Other administrative developments 105
  Consultation and technical services to States 105
  Termination of emergency services 106
  Services for the visually handicapped 107
  International activities 107
Improving public welfare 107
  Financing public welfare 109
    Special Federal aid to low-income States 109
    Federal matching maximums for individual payments 110
    State distribution of Federal and State funds 111
  Assistance for any needy person 112
    Federal funds for general assistance 112
    Definition of a dependent child 113
    Residence requirements 114
    Citizenship requirements 114
    Property restrictions 115
  Scope of assistance and service 115
    Medical care 115
    Determination of need 117
    Welfare services 117
  Administrative organization 118
  Extension of Federal aid to the Virgin Islands and Puerto Rico 119
Children's Bureau 119
  Grant-in-aid programs, 1946–47 121
    Maternal and child health services 123
    Services for crippled children 127
    Child welfare services 130
    Emergency maternity and infant care program 133
  Investigating and reporting services, 1946–47 134
    Research 134
      Mortality studies 134
      Child health survey 136
      Dental health studies 136
      Pediatric nursing study 137
      Visual-testing study 137
      Guardianship 137
    Advisory services on problems affecting children 137
      Services to children with special needs 137
      Services to children in special groups 139
      Mental health programs 140
      Educational and employment opportunities for youth 140
      State legislative proposals 140
    Reporting services 140
  International cooperation, 1946–47 142
  Improving services for mothers and children 144

Page
General Administration 148
The Social Security Administration 148
International activities 148
Bureaus and Offices 150
Regional and field organization 151
Merit systems of personnel administration in the States 152
Appropriations and expenditures 153
Personnel 155
Appendix 156

CHARTS

1. Payments for all public aid (public assistance and Federal work programs) and for public assistance and social insurance under the Social Security Act, January 1935–June 1947 facing page 1
2. Payments under selected social insurance and related programs, January 1938–June 1947 6
3. Social insurance beneficiaries and public assistance recipients under the Social Security Act, February 1936–June 1947 17
4. Number of aged persons receiving benefits under old-age and survivors insurance and number receiving old-age assistance per 1,000 persons 65 years and over in each State, June 1947 19
5. Living workers with wage credits under old-age and survivors insurance, by insurance status at beginning of year, 1940–47 31
6. Number of persons receiving monthly benefits under old-age and survivors insurance, June 30, 1947, per 100,000 population in each State 33
7. Average monthly old-age and survivors insurance benefits in current-payment status, by type of family, June 30, 1947 34
8. Number of persons receiving monthly benefits under old-age and survivors insurance, by type of benefit, January 1940–June 1947 55
9. Weekly number of claimants for unemployment benefits, August 4, 1945–June 28, 1947 69
10. Average weekly benefit for total unemployment and average actual duration of benefits for all types of unemployment, by State, fiscal year 1946–47 71
11. Average payments under old-age assistance, aid to dependent children, and aid to the blind, September 1946 and June 1947, by State 101
12. Maternal mortality rates, 1915–45 135
13. Infant mortality rates by age, 1915–45 136

APPENDIX

Regional and field organization as of June 30, 1947 156
Tables 159
1. Social Security Administration: Personnel, salaries, travel, and general expenses, by Bureau or Office, fiscal year 1946–47 159
2. Social Security Administration: Appropriations and expenditures, fiscal years 1945–46 and 1946–47 159
3. Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1945–47 160
4. Old-age and survivors insurance: Number of families and beneficiaries in receipt of benefits and average monthly benefit in current-payment status, by family group, end of June, 1947 and 1946 160

Page
5. Old-age and survivors insurance: Selected data on benefits and wage credits, by State, for specified periods, 1945–47 ... 161
6. Old-age and survivors insurance: Benefits in current-payment status, payments certified, and workers with wage credits, for specified periods, 1945–47 ... 162
7. Unemployment insurance: Selected data on benefits, claims, employment, and finance, by State, for specified periods, 1945–47 ... 162
8. Unemployment insurance: State accounts in the Federal unemployment trust fund, by State, fiscal year 1946–47 ... 164
9. Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1947, and total payments to recipients, fiscal year 1946–47, by program and State ... 165
10. Special types of public assistance under plans approved by the Social Security Administration: Federal grants certified and total expenditures and percent from Federal funds, by program and State, fiscal year 1946–47 ... 166
11. Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, and for emergency maternity and infant care, fiscal year 1946–47, by program and State ... 167

SECTION 2—OFFICE OF EDUCATION

Introduction ... 169
Elementary education ... 173
Secondary education ... 181
Vocational education ... 189
  Agricultural education ... 191
  Business education ... 194
  Home economics education ... 197
  Trade and industrial education ... 199
  Occupational information and guidance ... 202
Higher education ... 205
Veterans educational facilities program ... 214
Central services ... 217
  Research and statistical service ... 217
  Information and publications service ... 218
  Office of Education library ... 221
  Administrative management and services ... 223
International educational relations ... 225
Auxiliary services ... 230
  Service to libraries ... 230
  Educational uses of radio ... 232
  Visual aids to education ... 235
School administration ... 239
Surplus property program ... 247
American Printing House for the Blind ... 249
Columbia Institution for the Deaf ... 250
Howard University ... 252

SECTION 3—PUBLIC HEALTH SERVICE

Page
Foreword of the Surgeon General 259
Office of the Surgeon General 271
  Division of Commissioned Officers 272
  Dental Division 274
  Sanitary Engineering Division 275
  Division of Nursing 282
  Division of Public Health Methods 284
  Office of International Health Relations 293
  National Office of Vital Statistics 296
National Institute of Health 300
  National Cancer Institute 300
  Division of Infectious Diseases 304
  Division of Physiology 313
  Research Grants Division 319
  Division of Tropical Diseases 319
  Biologics Control Laboratory 326
  Chemistry Laboratory 329
  Industrial Hygiene Research Laboratory 332
  Pathology Laboratory 336
Bureau of Medical Services 341
  Hospital Division 343
  Freedmen's Hospital 352
  Mental Hygiene Division 353
  Foreign Quarantine Division 360
  Federal Employee Health Division 366
  Medical Care in other Units of the Federal Security Agency 367
  Medical Care in Other Agencies 368
Bureau of State Services 371
  Office of Public Health Nursing 374
  States Relations Division 378
  Venereal Disease Division 398
  Tuberculosis Control Division 410
  Division of Hospital Facilities 417
  Industrial Hygiene Division 421
  Office of Health Education 428
  District Offices 430

APPENDIX

Fiscal statement:

  Table 1.—Statement of appropriations, obligations, and balances 433
  Table 2.—Funds made available from other sources 434
  Table 3.—Allocations from Federal Security Agency 434
  Table 4.—Miscellaneous receipts 434

Personnel:

  Table 5.—Civil service personnel 435

Morbidity reports:

  Table 6.—Communicable diseases in the United States 435
  Table 7.—World prevalence of quarantinable diseases 436

Medical relief activities:

  Table 8.—Volume of medical service by type of station 438
  Table 9.—Volume of medical services for various classes of beneficiaries, by type of station 438

Medical relief activities—Continued Page
Table 10.—Medical services furnished by Marine Hospitals and medical relief stations 441
Table 11.—Transactions at Marine Hospitals and medical relief stations 441
Table 12.—Distribution of medical services, by class of beneficiary, Marine Hospitals 444
Table 13.—Costs per patient day in Marine Hospitals for in-patient care 444
Freedmen's Hospital:
Table 14.—Volume and type of service, 1943–47 445
Table 15.—Discharges, autopsies, and consultations, by departments and services 445
Table 16.—Residence and pay status of patients admitted 446
Table 17.—Appropriations and expenditures 446
Hospitals for drug addicts and mental patients:
Table 18.—Patient movement, Lexington, Kentucky 446
Table 19.—Patient movement, Fort Worth, Texas 449
Federal penal and correctional institutions:
Table 20.—Personnel, treatments, examinations, hospitalizations and deaths 450
Foreign quarantine activities:
Table 21.—Transactions at maritime quarantine stations 453
Table 22.—Transactions at United States airports of entry 454
Table 23.—Transactions at Mexican border stations 456
Table 24.—Applicants for immigration visas medically examined and certified 456
Table 25.—Aliens medically inspected and certified 457
Public health nursing:
Table 26.—Nursing personnel assigned to Bureau of State Services 460
Table 27.—Nurses employed for public health work, 1943–47 460
Table 28.—Vacancies in nursing positions in public health agencies 461
Assistance to States:
Table 29.—Payments to States for general health, venereal disease control, and tuberculosis control 462
Tuberculosis control:
Table 30.—Photofluorographic demonstration services rendered States 463

SECTION 4—ST. ELIZABETHS HOSPITAL

Historical Note 464
Foreword 465
St. Elizabeths Hospital 467
Movement of Population 467
Medical Department 471
Psychiatric Services 471
Division of Medicine and Surgery 480
Department of Administration 484
Needs of the Hospital 487
Legislation 488
Publications 490

SECTION 5—FOOD AND DRUG ADMINISTRATION

Page

Introduction — 495
Food, Drug, and Cosmetic Act — 497
  Food adulterations involving health — 497
  Food adulterations involving filth and decomposition — 502
  Food violations involving economic cheats — 517
  Sea-food inspection — 524
  Actions on drugs — 524
  Actions on devices — 532
  Vitamin, mineral, and other products of special dietary significance — 535
  New drugs — 536
  Actions on cosmetic and colors — 537
  Court interpretations of the Food, Drug, and Cosmetic Act — 538
  Legislation and regulation-making activities — 542
  Certification services — 544
Other acts enforced — 548
Scientific investigations — 549
Enforcement statistics — 556
Bibliography — 560

SECTION 6—BUREAU OF EMPLOYEES' COMPENSATION

Introduction — 565
Jurisdiction of the Bureau — 567
Operations Under the United States Employees' Compensation Act of September 7, 1916 — 569
Operations Under Emergency Relief Acts — 573
Operations Under the Longshoremen's and Harbor Workers' Compensation Act, and Extensions thereof — 574

STATISTICAL TRENDS IN FEDERAL COMPENSATION ACTS

Table 1.—Accidental Injuries to Civilian Employees of the Federal Government, July 1, 1945 to June 30, 1947 — 584
Table 2.—Accidental Injuries to Civilian Employees Other than Regular Federal Employees — 585
Table 3.—Appropriations and Expenditures, 1916–47 — 586
Table 4.—Trust Fund Accounts for Fiscal Year 1947 — 587

SECTION 7—OFFICE OF VOCATIONAL REHABILITATION

1947—A Banner Year — 589
  Scope and Administration of the Federal Act — 591
  Services to the Individual — 592
Organization and Activities of the Office of Vocational Rehabilitation — 592
  Advisement, Training and Placement Services — 593
    Table 1.—List of Training Institutes, Workshops and Conferences — 594
    Table 2.—Numbers of State Personnel Trained at Federally Sponsored Institutes — 594
    Table 3.—Breakdown of Advisement, Training and Placement Services to States — 595
  Physical Restoration Services — 596
  Services for the Blind — 597

Organization, etc.—Continued Page
Management and Fiscal Services 600
Information Services 604
District of Columbia Rehabilitation Service 608
OVR Cooperation with Others 608
Special Projects, Studies of the States and this Office 612
Services Provided by the States 614
Number of Persons Served 614
Physical Restoration, Training Increase 615
Sources of Referral of the Disabled 616
Services Received by the Disabled 617
Characteristics of and Services to Persons Rehabilitated 619
Estimated Earnings of Rehabilitants 621

APPENDIX

Table 4.—Summary of Case Load During Fiscal Year Ended June 30, 1947 622
Table 5.—Total Case Loan, by Agency, during Fiscal Year Ended June 30, 1947 622
Table 6.—Number of New Cases Received, by Sources of Referral, during Fiscal Year Ended June 30, 1947 624
Table 7.—Number of Persons who Received Various Types of Services during Fiscal Year Ended June 30, 1947 626
Table 8.—Number of Persons Whose Cases Were Closed As Employed, by Type of Job or Occupation at Closure, Fiscal Year Ended June 30, 1947 627
Table 9.—Total Expenditures from Federal and State Funds for Vocational Rehabilitation by State Boards of Vocational Education during Fiscal Year Ended June 30, 1947 629
Table 10.—Total Expenditures from Federal and State Funds for Vocational Rehabilitation of the Blind by State Commissions or Agencies for the Blind during Fiscal Year Ended June 30, 1947 630

SECTION 8—EMPLOYEES' COMPENSATION APPEALS BOARD

Organization 631

FOREWORD

Major Developments

The fiscal year just completed is an important landmark in the history of the Federal Security Agency because of the expansion of its activities due to Congressional approval of Reorganization Plan No. 2 of 1946, progress made in the development of new programs established by Congress, and significant legislative amendments affecting existing programs.

New and Expanded Activities

Reorganization Plan No. 2 of 1946, which went into effect on July 16, 1946, abolished the three-member Social Security Board, and transferred its functions and responsibilities to the Federal Security Administrator. Administration of the social security program was delegated to a newly created officer, the Commissioner for Social Security.

Under the Plan, the Children's Bureau, exclusive of its Industrial Division, was transferred to the Agency from the Department of Labor. The inclusion of this Bureau's programs—research in problems of child life, maternal and child-health services, services for crippled children and child-welfare services—in the Agency has done much to simplify the coordination of these functions with the related health, welfare and educational activities of the other bureaus of the Agency. It has greatly facilitated steps being taken in the interest of improving Federal-State relations.

The Plan abolished the Employees' Compensation Commission and transferred its functions to the Federal Security Agency, along with the direction to establish a three-member Board of Appeals to review and finally decide cases of injured Federal employees. The broad functions of the Commission are now delegated to the Director of the new Bureau of Employees' Compensation, and the Appeals Board has been established and is now in full operation. The Appeals Board provides an opportunity for impartial review of the decisions of the Bureau, and fills a need long felt by Federal employees.

Another transfer provided under the Plan was that of the Division of Vital Statistics from the Bureau of the Census. As the State statistics units were partially financed by the Agency the change simplified the administrative process in that the State vital statistics units now deal with one agency of the Federal Government. More important from a technical point of view is the progress being made in correlating vital statistics with the Public Health Service's morbidity statistics.

Progress has been made in developing the new programs which were provided for in the closing days of the 2d session, 79th Congress. The Hospital Survey and Construction Act of August 13, 1946, provides the basis for securing basic information on the Nation's requirements for additional hospital facilities, through grants of Federal funds to the States for surveys of their needs and resources. With a growing body of information regarding need for facilities, it is anticipated that construction programs will soon be under way to expand the facilities badly needed for the care of the sick and injured.

Congress also recognized the need for greater Federal support to research in mental health by passage of the National Mental Health Act of July 3, 1946. Funds were provided for expanding mental health activities in the States. Congress also immediately provided funds for the preparation of plans and the acquisition of a site for the construction of research laboratories and a clinical research hospital.

Progress is being made in determining requirements to safeguard the health of Federal employees. The survey now under way will develop needs, plans and procedures to meet the requirements of the Act which was approved August 8, 1946. In general this program is limited to emergency care of illness or accidents occurring on the job and the development of preventive programs.

The 1946 Amendments to the Social Security Act, approved August 10, 1946, provide benefits to survivors of deceased World War II veterans, and reconversion benefits to war-time seamen. They also enabled the States to provide unemployment compensation to maritime workers, and authorized increased grants to States for programs administered by the Children's Bureau and the Bureau of Public Assistance. Increases in public welfare and other grants have tended to offset increased living costs.

The substantial increase which Congress authorized in grants for vocational education should be of assistance to States in expanding instructional courses which are of great interest to veterans seeking this kind of training.

The pre-testing and certifying of streptomycin provided for in the March 10, 1947, amendment to the Federal Food, Drug and Cosmetic Act extends to streptomycin the same safeguards that now obtain in the case of penicillin and insulin.

General Summary

Generally the year can be viewed as a successful one from the standpoint of Agency operations. With the cessation of war activities, the Public Health Service is devoting its major effort on protecting and improving the health of our citizens. Increased funds will permit extended research in a number of important fields of medicine. There are, however, gaps which are inadequately covered, such as more extended research in certain maiming or killing diseases. It should also be noted that with a constantly increasing population dependent upon the Nation's rivers and streams for its water supply, the danger to health from pollution is a constantly increasing menace.

The States made strenuous efforts to improve their public school systems and in some cases made favorable adjustment in the wages of teachers. There are, however, many sections of the country where schools remained closed because of the unavailability of teachers. In addition all too frequently school facilities are either inadequate, obsolete or entirely lacking. The enrollment of veterans at schools and colleges continued to rise, with the result that our educational facilities have been strained to the limit. Although Congress provided for increased grants to States for vocational education, there is much still to be done if we are to equalize educational opportunity for children throughout the Nation.

The very substantial increases which Congress has provided for the various grant programs should do much to offset cost of living increases to assistance beneficiaries, assist the States in improving child health and welfare, and increase the number of injured persons who will be rehabilitated into economic productivity.

This year has been one of unprecedented employment and high income. Still, there are various segments of our population which suffer from limited educational opportunities for their children, inadequate medical care and preventive public health facilities, and income only sufficient to provide the minimum essentials for decent living. There is much to be done in our country to meet these basic human needs.

Office of the Administrator

Assistants to the Administrator

The Assistants to the Administrator served as staff aides to the Administrator and Assistant Administrator in general coordination of Agency operations and in matters of major interest to the Agency. Generally these were items of major importance and related to the over-all program of the President. Oftentimes they involved not only the direct operations of a constituent but also operations performed in other agencies of the Government with direct relationships to States and to National organizations. Among the major areas of activity of the Assistants were inter-agency and intra-agency committees. Through chairmanship of intra-agency committees dealing with matters of Agency-wide interest, and membership on inter-agency committees, they were able to help to develop a coordinated policy for the Administrator in connection with legislative and administrative proposals to the President, the Congress, and to Interdepartmental Committees. Health and education were among the fields of Agency-wide concern so handled during the year, with a view to developing a well-rounded approach to current needs in these fields. Because of the Agency's widespread research activities, a special intra-agency committee on scientific research was set up to develop Agency policies in connection with the deliberations and operations of the President's Scientific Research Board, on whose Board of Alternates one of the Assistants was a member. The Agency cooperated with the Attorney General's Conference on Juvenile Delinquency. The Administrator set up an intra-agency committee to develop a comprehensive program for dealing with this problem and for follow-up with interested agencies, both public and private. An intra-agency committee was also established to prepare a requested report on Universal Military Training for the Administrator for submittal to the President's Advisory Committee on Universal Training.

Office of Administration

During the year considerable progress was made in facilitating and simplifying management operations. The Division of Personnel Management in cooperation with the constituent units, organized the necessary boards and committees of examiners for the new decentralized Civil Service program. It supervised a substantial reduction in force made necessary by appropriation decreases in various parts of the Agency. The reductions were carried out successfully and with a minimum of hardship to employees. During the year the Division inaugurated a new manual system on personnel instructions which greatly simplifies personnel operations throughout the Agency.

The Budget Division was reorganized in two principal branches—Estimates and Fiscal. The Fiscal Branch has issued a number of bulletins which have resulted in simplifying and standardizing a portion of the records which the Agency must maintain in accordance with general procedures and instructions issued by the General Accounting Office. A new method of handling estimates, inaugurated by the Bureau of the Budget for the fiscal year 1949, has been made effective throughout the Agency and has resulted in eliminating considerable duplication which took place under the former system.

The Division of Service Operations undertook a major job of allocating space in the Federal Security and Railroad Retirement Buildings to units in the Agency. It successfully completed a series of moves with a minimum of delay to program operations. Numerous management functions were surveyed and plans have been developed for the consolidation of a number of functions, such as mail, procurement and storage, which can best be handled through a central office.

Office of the General Counsel

The General Counsel is chief legal adviser to the Administrator and to the heads of the constituent units of the Agency. His Office provides all legal services required by the various constituents of the Agency.

The work of this Office during the fiscal year 1947 is reflected throughout those portions of this report which deal with the activities of the various constituent units of the Agency. Many of the most important of these activities—such as the development of policies, regulations and procedures, the making of administrative interpretations and decisions, and the day-by-day operations of the programs—involved legal questions upon which the responsible divisions of the Office were continually called upon for advice and assistance. Some of the year's developments which were of special significance are briefly summarized in the succeeding pargraphs.

The President's Reorganization Plan No. 2 of 1946 entailed new responsibilities for the General Counsel's Office. The Office assisted in the general reorganization of the Agency occasioned by the Plan and assumed responsibility for furnishing legal services required in connection with the four grant-in-aid programs of the Children's Bureau. The legal staff of the former Employees' Compensation Commission became the new Employees' Compensation Division of the Office and assumed, in addition to its previous functions responsibility for assisting in developing regulations and procedures for the newly created Employees' Compensation Appeals Board and for furnishing legal advice to that Board in connection with appealed cases.

Prior to the enactment of the Social Security Act Amendments of 1946, the Hospital Survey and Construction Act, and the National Mental Health Act, the Office worked closely with the responsible Congressional Committees in the drafting and redrafting of these measures, and after they became law assisted the responsible operating organizations in the developmental phases of their administration. The new program of benefits for survivors of deceased World War II veterans entailed considerable legal services in interpreting the new law, in drafting new regulations and procedures, and in working out arrangements with the Veterans Administration to assure the smooth functioning of the program. Extensive amendments to the Railroad Retirement Act and integration of survivors benefits under that Act and the Social Security Act, necessitated the closest coordination between this Agency and the Railroad Retirement Board and the adoption of mutually agreeable regulations, policies and procedures which the General Counsel's Office was instrumental in developing.

In connection with the new program of reconversion unemployment benefits for merchant seamen, the Office drafted regulations and procedures and formulated an acceptable draft agreement for administration of the program by State unemployment compensation agencies. The substantial increases made by the amendments to public assistance grants and accompanying changes made in the matching formulas, occasioned a general reappraisal of principles and administration methods basic to Federal-State relationships and necessitated reconsideration of many State plans, in all of which the Office played an active rôle.

The Office participated extensively in the developmental phases of the new hospital survey and construction program. In that connection it prepared, in cooperation with the Council of State Governments, a model State bill for the guidance of State legislatures desirous of taking advantage of the provisions of that Act and a model State bill on licensure of hospitals.

The so-called "Streptomycin Amendment" to the Federal Food, Drug and Cosmetic Act was of significance to the Office, which assisted in the preparation of new regulations establishing a certification system for streptomycin-containing drugs. During the year the penicillin and insulin regulations were also completely revised.

In connection with the Administrative Procedure Act and the Federal Tort Claims Act the Office assumed general responsibility for the preparation and submission of the various materials relating to Agency organization and procedures required by the Administrative Procedure Act to be published in the Federal Register, and advised on the application of other provisions of the Act to various administrative proceedings conducted within the Agency. The newly established Agency Tort Claims Board was assisted in the development of procedures for handling claims filed under the Act, and advice was furnished on legal problems involved in particular cases.

During the year there was a substantial increase in the number of requests made to the Agency by Congressional Committees and the Bureau of the Budget for reports on bills and other legislative proposals in which the Agency is interested. The Office was responsible for preparation or review of such reports.

Significant court decisions in litigation arising out of or affecting the programs of the Food and Drug Administration, the Bureau of Employees' Compensation, and the Bureau of Old-Age and Survivors Insurance are discussed in some detail in the reports of those organizations. Brief mention might be made here, however, of the cases of *United States* v. *Silk* and *Harrison* v. *Greyvan Lines*, decided June

16, 1947, which are of particular importance to the Social Security programs, in view of the holding by the Supreme Court that the extent of the control exercised by an employer over individuals performing services for him was not the exclusive test of the employment relationship. Two other important social security cases were *Miller* v. *Bettencourt* and *Miller* v. *Burger*, decided June 5, 1947, where a Circuit Court of Appeals in construing section 209 (1) (4) of the Social Security Act (part of the definition of "agricultural labor") held that services performed in connection with the handling, processing, etc., of agricultural commodities cease to be included as agricultural labor upon delivery of the commodity to the grower's market.

Office of Research

The usual coordinating functions of the Office of Research consisted of the examination of all statistical schedules with the view of eliminating duplication, promotion of project planning, extending technical advice to various analysts in the Agency as to methods of study, examination of the major research manuscripts issued, and assistance to the Budget Division in the examination of the research budgets of the units of the Agency. Special problems of integration were raised during the year by reason of the transfer to the Agency of the National Office of Vital Statistics and the statistical operations of the Children's Bureau.

The Director of Research is also responsible to the Administrator for recommendations regarding over-all Agency research policy. In this field, considerable attention was given during the year to relationship of the Agency to the legislation for the National Science Foundation. The Office is also called upon to represent the Agency in interdepartmental and non-governmental research and planning activities. In this field, special attention was given to the National Conference on Juvenile Delinquency and the Committee on Institutional Statistics.

As a pilot enterprise in coordinated study of children's activities, the Office cooperated with the North Carolina State Planning Board in the Study of Security and Services for Children in North Carolina, and made suggestions for studies in this field to several universities.

One of the principal internal improvements in the Agency was the continued activity in the Office of Education looking toward the reorganization of its statistical and research program and the solicitation of the advice of outside experts on this reorganization.

The Office participated with the Office of the General Counsel in reviewing legislative proposals involving the research policies of the Agency and other matters of particular interest to the Office of Research. For example, extended consultation with outside groups was held on the various proposals for grants for school health services.

In addition the Office of Research completed studies of the incidence of orphanhood, methods of measuring the birth rates of generations of women, and needs for the Agency programs in Latin American countries.

Office of Information

Because of the nature of its programs, the Federal Security Agency is required to provide information for a wide range of official and professional groups, and for individuals—as citizens and community members, as the younger and older members of families, as wage-earners and employers, as manufacturers and producers, as tax-payers and as actual or potential beneficiaries of the tax-supported benefits and services for which the Agency represents the Federal Government. To meet this need, the Agency prepares and disseminates explanatory and informational materials on its programs as required or authorized by law.

These activities are directed to two major purposes—to facilitate efficient operation within the Agency and to aid in effective delivery of its services at the points and to the persons designated by law. A study of Agency output, made during the year 1946–47, indicates how its informational and educational materials conform to these administrative objectives. It was found that more than one-fourth of all materials issued by the Agency represented the end-product of scientific and technical activities—as, for example, *Public Health Reports*, *Social Security Bulletin*, *Cancer Journal*, *Causal Factors in Infant Mortality*, and *Efficiency of the Impaired Worker*.

More than one-fifth of the materials were designed to facilitate conformance with law and promote efficiency and economy in its operation, such as *Import Requirements of the United States Food, Drug and Cosmetic Act*, and *Employers' Duties under the Social Security Act and the Federal Insurance Contributions Act and the Federal Unemployment Tax Act.*

Nearly one-fifth of the materials served the purpose of promoting effective service to those named as potential or actual beneficiaries of Agency programs, such as *Federal Old-Age and Survivors Insurance*, *Unemployment Insurance and You*, *Security for Children*, *Infant Care*, *Your Child from One to Six*, *Tuberculosis*, *Camping and Outdoor Experience in the School Program*, *Why Be Handicapped?*, and *Vocational Rehabilitation for Civilians.*

The duties of the Office of Information include the preparation and distribution of materials relating to the Agency's over-all program, the supervision and coordination of the publications and informational materials developed throughout the Agency and representing the Agency as a whole in matters relating to public information and education. Much of its activity is thus primarily concerned with the

Agency's various programs in the health, education, security and welfare fields, covered elsewhere in this report. Since informational materials are regarded and utilized as tools of administration, this Office serves in an ancillary capacity. During the year, it thus contributed to the work of the Administrator's Office and the Agency as a whole in connection with the Juvenile Delinquency Conference, the Report on Migratory Labor, and the Report on Universal Military Training.

Office of Federal-State Relations

One of the major responsibilities of the Federal Security Administrator is to coordinate the work of the several constituent units. Most of the programs in which the Agency is interested are carried on through grants-in-aid to the several States. In all there are 15 important programs of this sort coming under the supervision of the Agency. These activities have grown up and expanded over many years during which the several units now comprising the Federal Security Agency were independent operating units. Each agency developed rules and regulations and procedures of its own in dealing with the cooperating State agency. The result was that when these units were brought together in the Federal Security Agency a given State department, for example the health department or the department of public welfare, might find itself required to submit duplicate materials to several divisions of the Federal Security Agency, or to submit different materials covering similar activities because of slight differences in the rules or procedures of the several constituents of this Agency.

Some progress has been made in the past in ironing out these differences but it was not until the adoption of Reorganization Plan No. 2 of 1946 that this matter was given major attention. In that Plan as approved the Administrator was directed, insofar as feasible, to establish uniform standards and procedures wherever there were common requirements in the several laws under his jurisdiction, and develop procedures so that any State agency participating in more than one program might submit a single plan and be subject to a single review of operations. In response to this directive the Administrator established the Office of Federal-State Relations. During the past year this Office has acted for the Administrator in working with the constituent units in reexamining their present requirements and procedures with a view to simplifying as far as practicable the presentation of State plan materials and the necessary reviews of operations. The objective is a clear statement of requirements and the development of basic standards in connection with each item required for each grant-in-aid program, which will serve as a guide for both Federal and State officials. It is anticipated that this will permit a substantial reduction in the amount and variety of materials which States are now required to submit in some fields, and will make clear the division of responsibility and authority between Federal and State agencies.

As part of the general program of coordination, a unified system of standards in connection with the merit system requirements included in many of the grant-in-aid laws is being developed for Agency-wide use. The Agency is also cooperating, through the Office of Federal-State Relations, with a committee of the Council of State Governments which is making a study of the whole field of Federal-State grants-in-aid. It is hoped that many fruitful suggestions will be derived from this source.

Office of Inter-Agency and International Relations

The Office of Inter-Agency and International Relations was established July 16, 1946, to assist the Administrator in coordinating the relationships of the Agency with other Federal departments and agencies, international agencies and organized groups concerned with health, education, welfare, social insurance and related programs. Because of the increased activities of the U. S. Government in international affairs and the growing responsibilities of the Federal Security Agency in this field, major attention has been given to international relations.

Activities of the Agency concerned with international relations are of two major types: (1) participation in the formulation of international social policy, and (2) activities related to the exchange of students, experts, and information with other countries.

International Social Policy.—The Federal Security Agency has been active in newly established interdepartmental committees to formulate United States position on matters of international social policy.

In the fall of 1946, the Office participated in working committees set up by the State Department to formulate recommendations on United States position on items to be considered by three Commissions of the Economic and Social Council of the United Nations which held their first sessions early in 1947—the Social Commission, the Commission on Human Rights, and the Commission on the Status of Women.

The Director of this Office has served as Agency representative on the Interdepartmental Committee on International Social Policy, established in December 1946, by Presidential Order, to secure the coordinated thinking of the Federal Government on all proposals and issues involving foreign social policy. She has also designated representatives from appropriate branches of the Agency to serve on the various technical subcommittees on Labor, Health, Social Welfare, Human Rights and Status of Women, Non-Self-Governing Territories and Cultural Relations, Information, Education and Science. Primary responsibility for the work of two subcommittees—those in Health and Social Welfare—have been carried by branches of the

Agency—the Public Health Service and the Social Security Administration.

Representation at International Conferences.—During the year the Director of this Office served, as at all previous sessions, as Adviser on Welfare to the United States member of the UNRRA Council at its Fifth Session held in Geneva, Switzerland, August 1946, and at the Sixth Session, held in Washington, December 1946. She also served as Alternate Adviser to the United States Representative on the Economic and Social Council at the Third Session, September 11–October 3, 1946, and as Adviser from the Agency to the United States Representative at the Fourth Session, February 28–March 29, 1947.

This Office has also made recommendations to the State Department for Agency representation by staff of constituent branches at a number of intergovernmental conferences.

Activities of Cultural Exchange.—During the year, the Agency relationships with the Interdepartmental Committee on Scientific and Cultural Cooperation of the Department of State were strengthened. The Agency was given representation on the Executive Committee. The Reorganization Plan No. 2 of 1946 brought into the Agency the Children's Bureau and the National Office of Vital Statistics, both of which have had programs of cooperation with the American Republics for a number of years. These additions increased the total working funds allocated to the Federal Security Agency programs to $582,069 for the fiscal year 1947. In addition, the cooperating governments contributed $53,859. Under these allocations, 90 trainees and students were brought to the United States from other American Republics, and 41 details of Agency personnel were made for the purpose of extending scientific and technical service.

In June the Secretary General of the United Nations requested the State Department to designate the appropriate office in the Federal Government to handle arrangements in the United States for programs of study and observation for the United Nations Social Welfare Fellows. This Office was designated by the State Department and is carrying out its responsibilities in connection with this program.

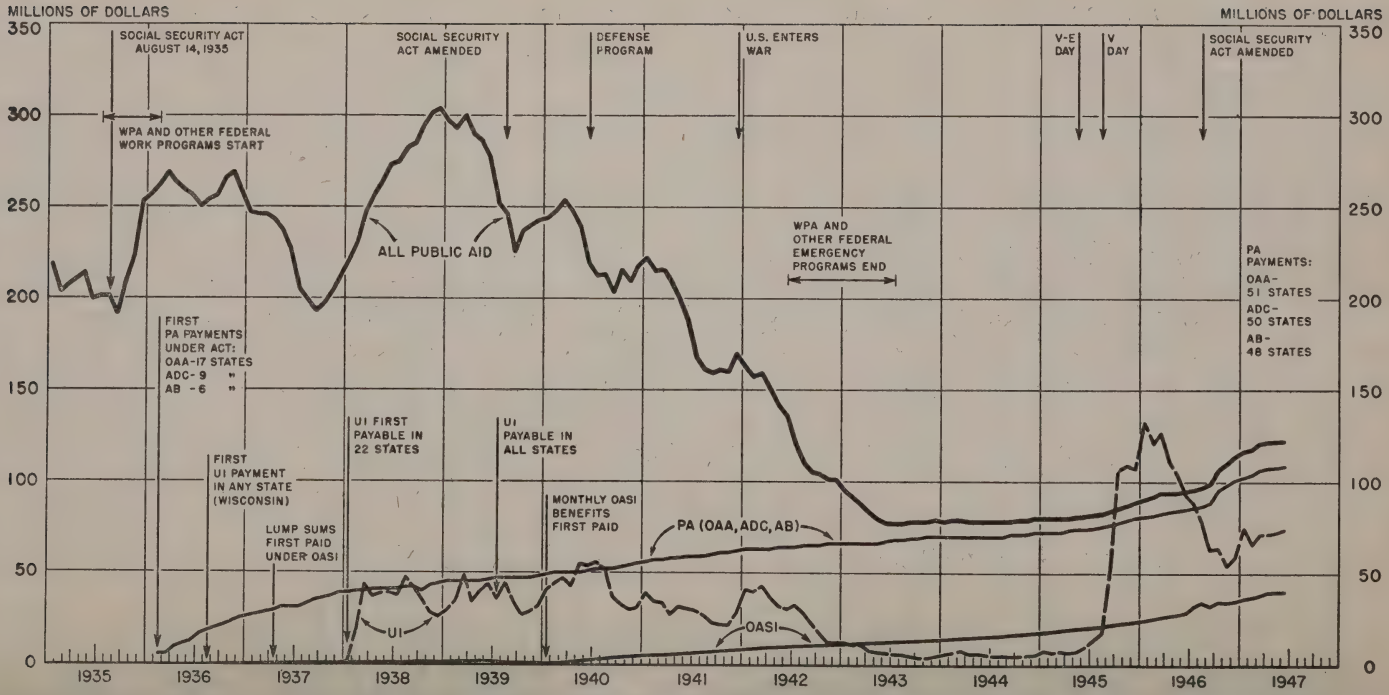


CHART 1.—*Payments for all public aid (public assistance and Federal work programs) and for public assistance and social insurance under the Social Security Act, January 1935–June 1947*

SECTION ONE

SOCIAL SECURITY ADMINISTRATION

SOCIAL SECURITY LOOKS AHEAD

THIS REPORT OF SOCIAL SECURITY OPERATIONS during the fiscal year 1946–47 spans a period characterized in the President's Economic Report to Congress as the "swiftest and most gigantic change-over that any nation has made from war to peace." Despite the attendant stresses and strains, civilian employment rose to the unprecedented level of 60 million persons. Unemployment remained close to the minimum considered unavoidable in a free economy of great mobility. Most of the workers who lost their jobs were eligible for unemployment insurance benefits to tide them over until they found other work or withdrew completely from the competition for jobs. Insurance benefits represented an assured, though small, income for many elderly workers and for many of the families of wage earners who had died. Other large groups of persons who for one reason or another could not qualify for insurance payments were able to turn to public assistance when they could no longer support themselves or when the family breadwinner died or became incapacitated or when other sources of support dwindled away or disappeared. Maternal and child health services—meager in some areas, more extensive in others—were increasingly available. Medical and related services for children handicapped by crippling conditions were expanded, as were welfare services for children whose handicaps stem from parental neglect or from various types of physical, social, and emotional strains.

Throughout the year the programs operating under the Social Security Act proved once more their adaptability to the changing needs and demands of the economy. Because of legislative action by the Seventy-ninth Congress, all programs were better equipped to meet the purposes for which they were designed. Administrative operations were strengthened by a closer integration of all four programs within the Social Security Administration, which was established by the Federal Security Agency in July 1946 pursuant to the President's Reorganization Plan No. 2. The Social Security Administration now comprises all bureaus and offices formerly under the Social Security Board—including the program Bureaus of Old-Age and Survivors Insurance, Employment Security, and Public Assistance—and the Children's Bureau, which under the Reorganization Plan was transferred to the Federal Security Agency from the Department of Labor with all its functions except those related to the enforcement of the child labor provisions of the Fair Labor Standards Act.

This first report of the Social Security Administration therefore covers all programs now operating under the Social Security Act and the research and reporting functions of the Children's Bureau under the act creating the Bureau. It presents a record of substantial accomplishment in providing a basic minimum of economic security to millions of persons in the Nation, and health and welfare services to thousands of children and mothers, through programs that have proved the soundness of their objectives and the feasibility of the methods by which those aims are accomplished. It also indicates the extent to which, in the belief of the Social Security Administration, the present provisions should be strengthened to meet those objectives more fully for all people in all parts of the country.

Operations during the fiscal year 1947 demonstrated the importance of unemployment insurance for the families of workers who could not find jobs immediately because their skills did not fit the jobs that were open to them in the places where they lived. Even when the economy is functioning at peak activity, however, millions of persons are unable for one reason or another to avail themselves of job opportunities. The past year underscored the fact that, while full employment and full production are imperative for continuing economic health in this country and throughout the world, they cannot of themselves solve the problems that face most working people and their families when family income is interrupted for any length of time or cut short completely. For millions of such families, social insurance benefits and assistance payments were the major source of income.

In every month, more than 1½ million persons—aged workers and their wives and dependent children, and the widows, children, and aged parents of deceased workers—received monthly benefits under the Federal old-age and survivors insurance program, which were financed by the regular contributions of the employees and their employers. The potential protection of the program in terms of survivor benefits was of striking significance. On January 1, 1947, for example, about 41½ million persons had worked a sufficient length of time in covered employment to have acquired insured status, so that the death of any one of them could give rise to survivor benefits under the system. The value of that protection, alone, was equivalent to more than $75 billion in term life insurance.

Other groups of the population, for whom the provisions of the insurance program were not available and who were little able or completely unable to work, could turn to public assistance for the minimum essentials of living. In June 1947, for example, more than 2¼ million elderly men and women—or over 2 in every 10 persons in the population aged 65 and over—were receiving old-age assistance because they were no longer able to support themselves or because income from other sources was not sufficient to meet their needs. Aid to the blind was the partial or only income of 79,000 needy blind persons. In the same month, aid to dependent children was going to more than a million children in nearly 400,000 families that had had to turn to the program for assistance because the family breadwinner had died or was incapacitated or absent from the home. In addition to these groups of the aged or the blind or children deprived of parental support, some 700,000 other needy persons throughout the country were being aided by general assistance, provided by States and local communities. These were mainly persons who could not qualify for one of the special types of public assistance.

Community health and welfare services also played a vital role in providing for economic as well as social security. These services include the programs designed to improve the general level of health in communities and, in particular, the health and welfare of mothers and children, and to promote the welfare of children who lack opportunities that should be the birthright of every American child. Future progress in improving health and preventing needless suffering and premature death will depend largely on the ability of all the population to obtain adequate individualized services for the diagnosis and care of sickness and for the attainment of maximum physical and mental efficiency—basic to the ability to maintain self-support.

The Need for Present Action

The Social Security Administration believes that systematic provisions for underwriting the basic minimum security and well-being of the men, women, and children of the Nation are an integral part of our democratic way of life and our free competitive economy. Social security is, in fact, the organized effort that the people make, acting through their government, to try to assure that every family has the goods and services necessary for decent living and receives these basic essentials in circumstances that preserve self-respect and opportunity for economic and social advancement. To the extent that a people have the confidence that springs from economic security and freedom of opportunity, the economic system is free to encourage experimentation, invention, improvement of technological processes, elimination of waste, and continued response to changing ideas and circumstances.

Our present provisions for social security in this country represent the adaptation of social institutions to the changes of a dynamic economy. The Social Security Act was a significant milestone in that development. Under it the Nation pledged itself to a concerted attack on problems recognized as transcending individual or community efforts at solution. It represented an extension of earlier legislative provisions enacted at different times in this country's history and dealing with different groups in the population.

The Social Security Act built on existing foundations, but it was not the finished structure. When the act became law it was hailed by President Roosevelt as "a cornerstone of a structure which is being built but is by no means complete." In the recommendations of the Committee on Economic Security, on which congressional consideration of provisions to be embodied in the act was based, the Committee emphasized the fact that their approach was "piecemeal" and "dictated by practical considerations." But, the Committee continued, "the broad objectives should never be forgotten. Whatever measures are deemed immediately expedient should be so designed that they can be embodied in the complete program which we must have ere long."

Throughout the ensuing decade, as experience in operating the programs was gained and as experimentation proved the basic soundness of those programs and showed also the areas where changes were necessary, progress toward a more complete program was made. The 1939 amendments materially strengthened the basic structure. The amendments of 1946 buttressed some minor points. Testimony at the congressional hearings that preceded the 1946 legislation indicated the widespread public realization of gaps and inadequacies in present coverage and benefits and overlappings in provisions for certain groups of the population. The limited character of the 1946 provisions and the need for fundamental review were stressed by both Houses of Congress when the amendments were passed. That need had previously been recognized by the adoption of a House resolution in March 1945 authorizing the Committee on Ways and Means to obtain information "with respect to the need for the amendment and expansion of the Social Security Act." It was reaffirmed by Senate resolutions in both 1946 and 1947 that directed the Senate Committee on Finance to make a "full and complete study and investigation" of all aspects of social security.

The objective of a comprehensive program of social security is twofold. It should enable the great majority of all individuals and families to maintain their independence when they meet with the common economic hazards against which they have little or no individual defense. It should also assure that the services necessary for the health and welfare of the people of our country are available for their use.

In our contributory social insurance program we have a tested and successful system that can be used to compensate all the major risks of wage loss—sickness and extended disability, unemployment, old age, and death, as well as the costs of medical care. A comprehensive social insurance system would afford protection to all to whom these risks apply. It would have the simplicity and economy attainable through use of a single set of records, a single contribution, and a single set of local offices to administer all types of cash benefits.

Our present system is incomplete in the coverage of both risks and persons. The type of risk against which a worker and his family are protected depends on whether the wage earner works in industrial and commercial employments covered by the Social Security Act; whether he is employed by a railroad, the Federal Government, a State or municipal government, or a nonprofit organization; or whether he works in agriculture or domestic service. If he is a veteran, he and his family receive payments and compensation under special legislative provisions. In some employments a wage earner has no insurance against wage loss; in some he is insured against two or three of the risks or against only one. Only railroad workers have comprehensive insurance against the major risks of wage loss due to sickness and extended disability, unemployment, old age, and death, but even they lack insurance against the costs of medical care.

Workmen's compensation for occupational accidents and diseases was the first public insurance program to be established in this country. Yet such disabilities are only a fraction of those that day by day take a heavy toll of the Nation's productive capacity. Compensation under public provisions for wage loss from prolonged nonoccupational disabilities is at present confined to veterans or to persons employed by the railroad industry or by government. Yet there are very few wage earners—even among those who have substantial protection against old-age insecurity and unemployment—who would not be reduced to dependency on relatives or public agencies if they met with a long period of incapacitating illness. Only railroad workers and employees in two States have social insurance protection against wage loss from temporary disability of nonoccupational origin. Undoubtedly the lack of protection against the risks of disability and the costs of medical care under our present social security program has been one of the reasons for the present widespread demand in various industries for the establishment of health and welfare funds.

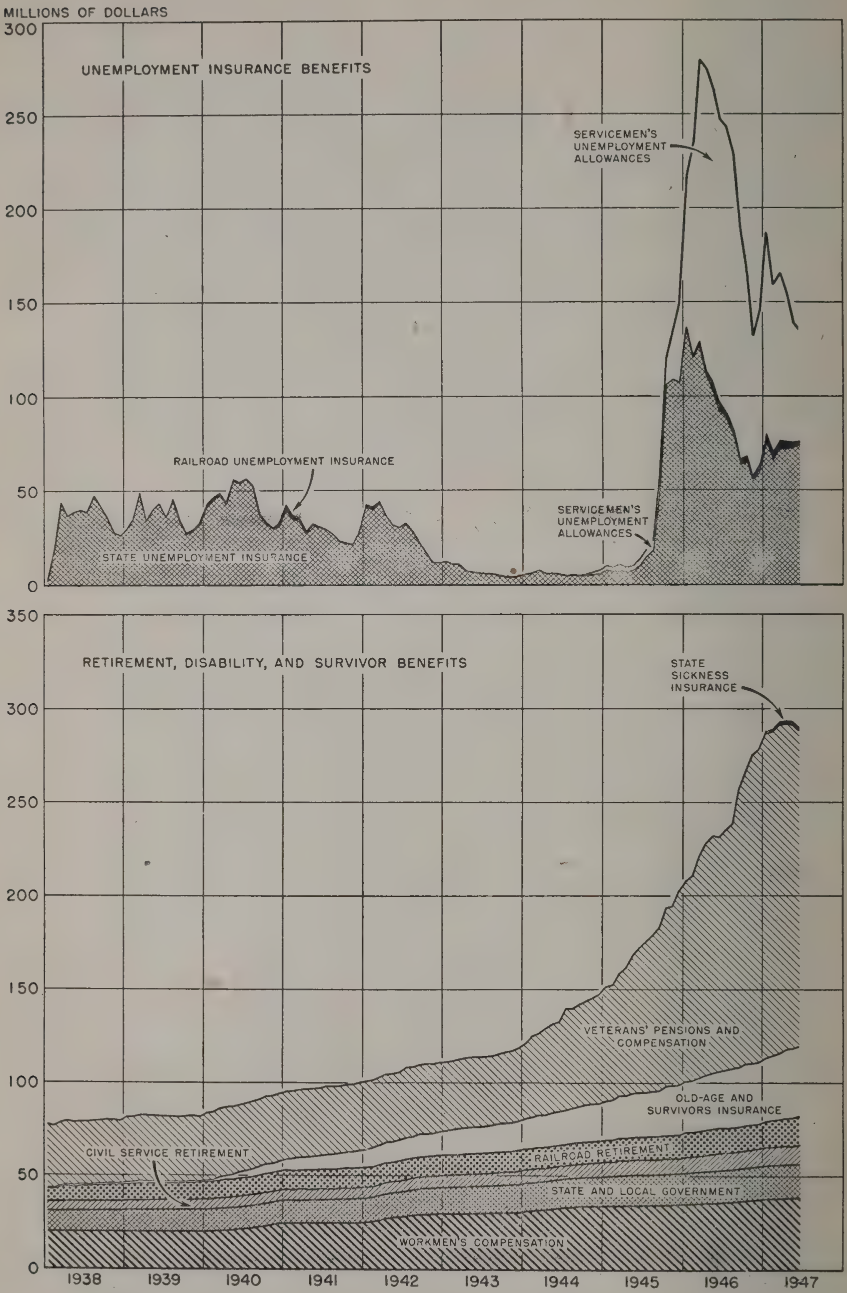


CHART 2.—*Payments under selected social insurance and related programs, January 1938–June 1947*

In this respect the situation is analogous to that a few decades ago when the problem of the older worker came to the fore and various industrial concerns set up private pension plans for their aged workers. These plans were confined chiefly to the large companies in the heavy industries, and many of them had restrictive eligibility requirements, limiting protection to workers with long service in the individual company. In terms of effective coverage of the wage-earning population and of adequate and assured protection to workers and their families, the plans proved that voluntary insurance alone cannot cope effectively and at minimum cost with the problem of providing basic protection to all workers. Once that basic protection is assured to substantially all persons to whom the risk applies, however, private plans and individual thrift can more surely build a supplementary protection for individual workers and their families.

In addition to present anomalies in the type of protection available to different occupational groups, the extent of protection for persons insured against similar risks also varies greatly. Under our present provisions, for example, it would be possible for an individual to work at some time during the course of his working life in jobs covered by Federal old-age and survivors insurance, the Railroad Retirement Act, the Civil Service Retirement Act, and the retirement plan of a State or locality. According to the length and timing of such employments, he might become eligible to receive retirement benefits under one or more or all of these plans. Another man, with similar earnings under several of the programs, may go through a working life without ever acquiring retirement rights under any. Conceivably the survivors of a worker who dies might be eligible for benefits under the Federal old-age and survivors insurance system as well as under a State workmen's compensation law and under general veterans' legislation. Another family, equally in need of income to replace the father's earnings, may have had no opportunity to gain protection under any of these programs. There are also anomalies under the various provisions for unemployment insurance.

These variations in protection are the result of the piecemeal development of legislative provisions rather than of any fundamental or logical difference among occupational groups of wage earners in the need for basic protection. In this country, as in all countries where social security measures of one kind or another have been adopted over a period of time, the development of an adequate system, without gaps and overlapping, is an evolutionary process. In this process, two fundamental principles are at work. One is universality of protection—in which the problem is one of making certain that there are no avoidable gaps and no undesirable overlapping. The other is adequacy of benefits, which includes not only the amounts payable under any one program and the proper relationships between the amounts and duration under several programs but also the simplicity and objectivity and certainty of their provision.

In a dynamic civilization, no particular set of provisions or dollar amounts will ever present a permanent standard of adequacy. The Social Security Administration is especially concerned with the need for adjustment at the present time in benefit levels of all programs under the Social Security Act to keep pace in some measure with the rapid rise in living costs during the past year. The impact of that rise, perhaps most evident in the public assistance programs, has been felt in both the insurance programs but most acutely in old-age and survivors insurance, with its fixed statutory scale of benefits. This scale was adopted in 1939, and even if it was adequate in relation to 1939 conditions it is no longer adequate, either in terms of purchasing power or in terms of replacement of wages. The increase in the costs of goods and services has also affected the adequacy of programs providing health and welfare services to children and mothers.

The 1946 amendments to the public assistance provisions, for example, which provided for increase in Federal participation, enabled State public assistance agencies to raise the level of assistance payments. The increases in the maximum amounts in which the Federal Government will participate were not commensurate with the rise in living costs, however. The new maximum payments to an aged or a blind recipient in which the Federal Government will share represented an increase of about 12 percent over the previous maximums, which were established in the 1939 amendments. Yet from August 1939 to July 1946 the cost of food for families of moderate income living in large cities rose 77 percent, according to the consumers' price index of the Bureau of Labor Statistics. In the next 12 months, food costs rose another 15 percent. The increase in the Federal matching maximums for aid to dependent children was greater than in the other two programs, but it was far from equivalent to the rise in the cost of food alone since 1935, when the previous maximums in aid to dependent children were established.

During the war this country proved its amazing productive capacity by turning out half the war material with which the Allied Nations waged war on all fronts throughout the world. We are now producing at least one-third of the world's total output of goods, at an unprecedented level of civilian employment. The Social Security Administration believes that economic conditions at the present time offer an exceptional opportunity to develop a comprehensive program that will provide the basic essentials of social security for all persons in all parts of the Nation. In the stark urgency of the present world situation, the continuing existence of our free competitive economy and the ideals of democracy as an economic system as well as a system of government are facing their most serious challenge. A positive and concerted attack on all areas of insecurity in this country is imperative, in the belief of the Administration, if we are to meet that challenge successfully.

Summary of Recommendations

A Comprehensive Program of Social Security

To accomplish this objective, the Administration believes that our present programs of social insurance should be broadened into a comprehensive basic national system of contributory insurance. With such a system the great majority of all families can maintain their economic independence when they meet with common hazards against which they have little or no individual defense. Even with complete coverage of risks and of population, however, there will always be some groups who will fail to qualify for insurance benefits and other groups who need a variety of services for which they turn to the public welfare agency. For these there should be comprehensive welfare programs, including public assistance and family and child welfare services. In addition to these provisions for safeguarding family income and family welfare, a comprehensive program of services for children should be developed, since the Nation's progress in coming decades will be shaped and determined by the children of this generation. The Social Security Administration therefore recommends the establishment of:

A comprehensive basic national system of contributory social insurance. This basic program, covering all major risks to economic independence and all workers and their dependents threatened by such risks, would include insurance against wage loss in periods of disability and against costs of medical care, for which no general provision now exists in the United States, as well as old-age and survivors insurance and unemployment insurance. Cash benefits would be related to past earnings and additional benefits provided for dependents. The program would be designed to eliminate existing gaps in the coverage of both persons and risks, to remove present inequities in the protection of workers and their families and in the financial burdens of employers, and to provide a consistent relationship, not only among the insurance provisions for the various risks covered but also between the provisions of the basic system and those of supplementary special systems now in effect for particular groups. As compared with separate programs to meet particular risks, such a system would reduce administrative costs and reporting burdens and simplify arrangements as they affect workers, employers, and public agencies.

A comprehensive program of public welfare, including public assistance and family and child welfare services. Under this program, on a Federal-State basis, payments and services financed from Federal and State funds would be available to any needy person in the United States, irrespective of the reason for need or the place of residence. The Federal financial contribution to such a program should be designed to remove the great disparities now existing in the treatment of various classes of needy persons and to reduce the disparities in different parts of the country. It should also be designed to remove serious present inequities in the relative burdens borne by States and localities in financing public assistance.

The role of public welfare agencies should be strengthened by Federal participation on a State-wide and comprehensive basis in social services for all families and adults and children. Federal grants should be available likewise to assist the States in developing such services to families and individuals—whether self-supporting or not—who turn to the agencies for help in becoming self-supporting, in making use of community resources, and in solving individual problems in family or community adjustment.

A comprehensive program of health and welfare services for children and research in child life. Such a plan should provide for the progressive development of the full range of physical, mental, and social services of high quality required by mothers and children of this country wherever they live and whatever their income or race. Immediate attention should be given to the provision of programs of health, medical, and dental services for the child of school age—one of the most neglected areas of service. Research and investigation in child life are essential in supporting and guiding the development of these services and enriching our knowledge and understanding of the needs of children. Such research should approach the programs of child life from the point of view of the total child, his growth and development, and his place in society.

Legislative changes that would assist in the achievement of the objectives outlined above are discussed more fully in subsequent chapters. In brief, the recommendations include:

Old-Age and Survivors Insurance

Coverage of all gainful workers, including agricultural and domestic employees, public employees and members of the armed forces, employees of nonprofit organizations, railroad employees, and self-employed persons, including farmers and small businessmen.

Changes in the average monthly wage and benefit formula to increase benefit amounts, particularly to low-paid workers.

Increase in the maximum amount of earnings taxable and counted in benefit computation, and expansion of the definition of taxable wages to include all tips, gratuities, and dismissal wages.

Increase in the amount of earnings a beneficiary may receive in covered employment without suspension of benefits.

Reduction of the qualifying age for all women beneficiaries from 65 to 60 years.

Greater uniformity in defining, for purposes of the insurance system, family relations and conditions of dependency that qualify members of an insured person's family for benefits.

Payment of a lump sum in the case of every deceased insured wage earner.

Payment of benefits during periods of extended or permanent total disability similar to those for old-age retirement.

Provision for ensuring uniformity in coverage decisions relating to liability for contributions and eligibility for benefits, which are based on identical language in the Social Security Act and Internal Revenue Code but are made by two separate Federal agencies—the Bureau of Internal Revenue and the Social Security Administration.

Adoption of a long-range plan for financing old-age and survivors insurance which looks toward an eventual tripartite division of costs among employers, employees, and the Government.

Unemployment Insurance

Extension of the Federal Unemployment Tax Act to all employers of one or more workers in covered industries and to many excepted employments.

Provision of unemployment benefits for employees of the Federal Government.

Provision of a maximum weekly benefit amount of at least $25 for the wage earner with dependents, in the case of workers whose past earnings entitle them to the maximum.

Provision of as much as 26 weeks' duration of benefits for all workers eligible for benefits whose unemployment extends over so long a period.

Provision that disqualifications for voluntary leaving without good cause, discharge for misconduct, or refusal of suitable work should entail only postponement of benefits for not more than 4 weeks rather than cancellation of benefit rights or reduction of benefits.

Definition of good cause for voluntary leaving or for refusing suitable work to include good personal reasons, not merely causes attributable to the job or the employer.

Reduction in the Federal tax rate: if the credit-offset feature of the present tax is retained, reduction of the tax to 2 percent; under a grant-in-aid provision, substitution of a straight Federal tax of 1 percent of covered pay rolls, from the proceeds of which Federal grants to the States would be made to share the costs of both benefits and administration.

Extending to the States the option of granting rate reductions to employers either through experience rating, State-wide reduction, or some other method.

Modification of the additional-credit provisions to reduce the contribution rate for new employers by permitting them to pay the State-wide average rate instead of 2.7 percent.

Disability Insurance

Provision for cash benefits to insured workers and their dependents during both temporary disability (less than 6 months) and extended disability (6 months and over).

Medical Care Insurance

Insurance against costs of medical care, including payments to physicians, dentists, nurses, hospitals, and laboratories, with provision for free choice of doctor and patient, decentralization of administration, and utilization of State administration.

Public Assistance and Welfare Services

Special Federal aid to low-income States for assistance, administration, and welfare services to enable States with relatively low economic resources to develop adequate public welfare programs.

As a condition of Federal aid, State apportionment of Federal and State funds among the localities in accordance with their need for funds.

Removal of the Federal maximums limiting Federal participation in individual monthly payments for aid to dependent children and removal or increase of such maximums for old-age assistance and aid to the blind.

Federal grants to States for general assistance to any needy person, as well as for the three special types of assistance.

Extension of Federal participation in aid to dependent children to include participation in assistance to a parent, relative, or other person who assumes responsibility for the parental care and support of any needy child and who maintains a family home for the child; such payments should be made without regard to the cause of the child's need.

Withholding approval of any State plan under the Social Security Act that contains a residence or citizenship requirement as a condition of eligibility for assistance.

Prohibition, as a condition of Federal grants, of State requirements for transferring title or control of property of an applicant or recipient to the State or locality. This stipulation would not preclude any agency from claiming from the estate of a deceased recipient recovery of the assistance paid.

Federal participation in the costs of medical services made available to needy persons under State public assistance programs and in assistance payments to needy sick persons who reside in public or private medical institutions other than mental hospitals and tuberculosis sanatoria.

Federal financial participation in all types of welfare services administered by the staff of the public welfare agency to help families and individuals become self-supporting, make fuller use of community resources, or solve individual problems in family or community adjustments. Such services should be available, when requested, to recipients of assistance and to others not needing or requesting financial aid.

Explicit provision in the Federal act that a State, as a condition of plan approval, be required to define the standard of living to be afforded needy persons through assistance and their own resources, if any; to develop standards that will assure equitable treatment of needy persons throughout the State; and to consider, in determining the amount of assistance, only resources actually available to the individual.

Unification of the administration of State public assistance programs at both State and local levels as a condition of Federal grants.

Extension of Federal grants-in-aid for all assistance programs to Puerto Rico and the Virgin Islands.

Children's Services and Research in Child Life

Legislation and appropriations providing for the progressive development of State-wide programs at a rate consistent with availability of personnel and with facilities that meet standards established under State plans, for the purpose of assuring that child health and welfare services will be available as needed for all children in all political subdivisions of each State. Provision of such services without discrimination as to race, creed, nationality, residence, citizenship, or economic status.

Development within the health and welfare programs of measures necessary to assure that children in migrant families will receive the services they need.

Priority of attention to development of programs of health, medical, and dental services for children of school age.

Safeguarding the rights of parents and children to such services by requiring that State plans provide an opportunity for fair hearing before the State agency responsible for the program, whenever a claim for care or services under the plan is denied; and adequate restrictions on the use or disclosure of information concerning persons applying for or receiving such services to purposes directly connected with the administration of such services.

Special provision of financial aid in the training of professional and technical personnel needed in making child health and welfare services available throughout the country.

Effective coordination of the health and welfare services for children with other health and welfare services.

Administration of the maternal and child health and crippled children's services by the same State health agency in each State by the end of a 5-year period.

Appointment by each State agency administering maternal and child health and crippled children's services of a general advisory council providing adequate representation of the public as well as of the professions.

More adequate financial implementation of the basic act of 1912 creating the U. S. Children's Bureau, to enable that Bureau to strengthen and broaden its work as a center of information related to children; to evaluate current research in the physical, biological, and social sciences that pertains to the growth and development, the health and well-being of children and young people; to assist in financing specific research projects by competent research authorities to fill in recognized gaps in these fields of research; and to undertake research and investigations that deal with the child as a whole or with specific problems that require Nation-wide study or that have Nation-wide significance to State and community health and welfare programs for children or mothers.

Interrelationships of Social Insurance Programs

The Social Security Administration believes that a comprehensive program, based on a national system of contributory social insurance and supplemented by a Federal-State system of public health and welfare, is the most effective and economical method of providing the basic essentials of social security for all persons in all parts of the Nation. Covering under a single basic insurance system all the common risks that cause loss of earnings or burdensome sickness costs would make it possible not only to ensure well-rounded protection but also to establish the proper relationships between eligibility conditions, the amounts and duration of benefits, and financing of all the various programs. Moreover, with comprehensive coverage, the benefits paid would reflect more closely than at present the wage loss actually suffered, since the individual's earnings in any job he might have had would be counted in computing the benefits. Experience in the operation of old-age and survivors insurance, the most comprehensive single program of social insurance in this country, has clearly demonstrated the feasibility of decentralized administration of a Federal program, which can give individualized services through local offices that become closely interwoven with the life of the local community. It is also possible and desirable to have advisory councils and appeals bodies in the various areas of operation. Such bodies would provide for appropriate representation of the general public, of the persons who contribute to the system, and of the professional interests of particular groups, such as the medical and related professions and the hospitals.

The Social Security Administration believes that a comprehensive social insurance system should be financed in part through a Government contribution as well as the contributions of employers and employees. A Government contribution for old-age and survivors insurance, if receipts from pay-roll taxes should become insufficient, is already authorized on the statute books. A three-way division of cost makes possible a fair assessment of the three types of responsibility inherent in social insurance—individual, industrial, and social. Since a very large proportion of the population would have protection under such a system, a Government contribution from general tax funds would be warranted. The stabilizing effects of a comprehensive and adequate system would be of importance even for persons who did not share in it directly, and public costs otherwise necessary for assistance would be gradually reduced as the insurance system took over responsibilities that must now be financed from general tax funds.

Costs of a comprehensive system of social insurance must be considered in relation to the costs that exist in its absence. Whether or not there is social insurance, substantially the same costs exist in the form of losses of earnings from sickness, disability, unemployment, old age, and death, and in medical bills. When social insurance is lacking, these charges appear in the costs borne by the unfortunate families concerned and by the public that also foots a considerable part of the bill for relief and public services, and in the loss of potential business and national income when many families are in economic distress. With social insurance, losses suffered by a part of the population are distributed over the entire population. The relatively small but regular amounts paid out in social insurance benefits have an importance far beyond their size, both for those who receive them and for the economy as a whole.

Whatever method is adopted for achieving a comprehensive social insurance system, the Social Security Administration believes that the employment security program should continue to be an integral part of a social insurance system. Only by such coordination of the entire field of social insurance can the social security program make its maximum contribution to individual and family security as well as to the stability of business and the economy in general.

In the United States, as in other countries, various measures for economic security have been established at different times and for different groups in the population. A particular cause or the plight of a particular group gains public recognition and a law is passed. In time, several laws may deal with different parts of the same problem while other serious needs go without attention and other groups are left without protection. From the standpoint of the Nation as a whole, gaps and overlaps and serious differences in the protection available to different groups inevitably result. Then comes a period, such as most of the world's democracies have been facing in recent years, in which it is necessary to reexamine the whole series of measures relating to social security, to remove inequities, fill in gaps, extend and coordinate provisions that have proved useful, and thus to work out a program that will be safer, stronger, and more effective. After 12 years of operation under the Social Security Act, the Social Security Administration believes that this country now has the information and experience necessary to strengthen social insurance in the United States and to make it comprehensive and adequate.

Such a step probably would have seemed advisable in the ordinary course of the development of the social security program. Added reason for action now is given by problems that have been intensified by the war and by the Nation's determination to secure continuing economic well-being in peace.

Social Security Risks and Resources in 1946–47

Social security programs in 1946–47 reflected in their operations the continuing adaptation of the economy to peacetime conditions. With the major readjustments in the labor force completed in the previous year and civilian employment at a record level, both unemployment and the withdrawals of aged and marginal workers from the labor force tended to stabilize. As a result the total number of workers receiving unemployment benefits and the number of aged workers filing for retirement benefits under old-age and survivors insurance were smaller than in 1945–46. Awards to new beneficiaries under the latter program greatly outnumbered separations from the rolls due to death and other causes, however, and the load continued to rise. Contributions under both insurance programs exceeded benefit payments, and at the end of the fiscal year the assets of the two trust funds were at their highest levels.

Despite a record flow of national income, the average worker could buy less with his earnings in 1946–47 than in 1945–46 because of the increases in living costs. One result was a reduced ability to contribute to the support of needy relatives. This factor, in combination with less favorable employment opportunities for marginal groups in the labor force and a marked decline in the number of families receiving monthly payments as dependents of members of the armed forces, led to a significant increase in the number of applications for public assistance. By June 1947 the wartime reduction in the number of recipients of old-age assistance and of aid to dependent children had been completely wiped out. Cases in receipt of general assistance in the same month were 46 percent higher than the wartime low of August 1945.

Unemployment

A little over 2 million persons were unemployed during an average week in 1946–47. In a labor force that averaged 59 million persons, this volume of unemployment represented little more than the normal movement of persons between jobs. Sustained by a large-scale demand for civilian goods and services both at home and abroad, employment achieved new levels during the year. On the average, 4 million more persons than in 1945–46, and 10 million more than in 1940, had jobs. Wartime labor shortages had, however, disappeared in all but a few industries, and a seasonal pattern of unemployment emerged.

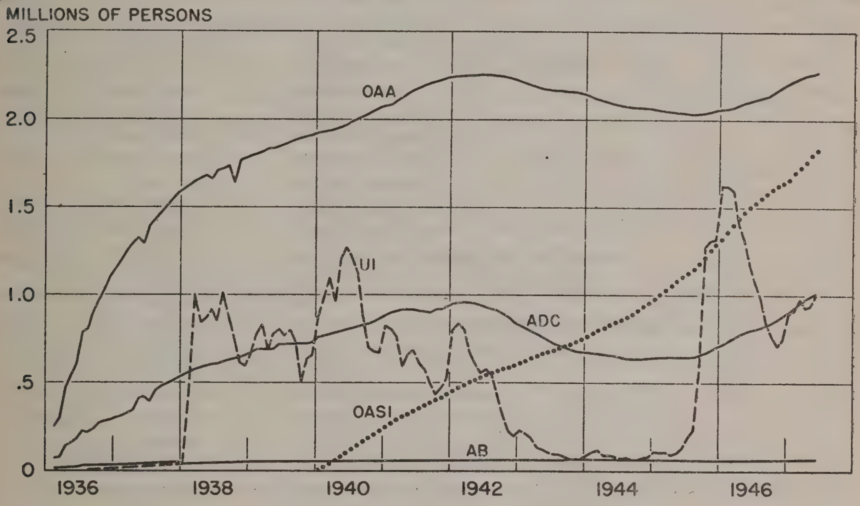


CHART 3.—*Social insurance beneficiaries*[1] *and public assistance recipients under the Social Security Act, February 1936–June 1947*

Most of the unemployed were able to turn to unemployment insurance to tide them over their jobless spell, which lasted from 1 to 2 months for the typical person out of work. Reflecting the drop in unemployment, beneficiaries of State programs declined from a weekly average of 1.6 million in January 1946, the postwar peak, to 1.0 million in June 1947. Veterans in receipt of Federal readjustment allowances for unemployment decreased from 1.8 million in June 1946 to 713,000 a year later.

---

[1] For old-age and survivors insurance, excludes persons receiving lump-sum payments.

Old Age

During the course of a year, perhaps two out of three workers are engaged in employment covered by old-age and survivors insurance. Most of today's aged persons who are not working, however, left the labor force before they could build up the right to benefits under the program, or are women married to men with few or no wage credits, or are the survivors of such men. In June 1947 fewer than one-half of all retired men aged 65 years and over and only one-fifth of all aged women who were not supported by income from employment, either as wage earners or the wives of earners, were receiving old-age and survivors insurance or payments under the special retirement systems for railroad and government workers or under the veterans' program. Aged beneficiaries under the old-age and survivors insurance program numbered 1.2 million, under the other three programs about 700,000. In the aggregate they accounted for 18 percent of the estimated 10.7 million aged persons in the country.

Not all individuals are ready to retire at age 65. The high level of employment in 1946–47 provided work opportunities for substantial numbers of aged persons. In June 1947 perhaps 3.7 million persons 65 years of age or over, or about one in three, had income from jobs either as earners or as the wives of earners. This number included about 900,000 persons who were eligible for old-age and survivors insurance but were not receiving benefits. The war demonstrated that the aged with some work capacity prefer employment to retirement. That the preference was not just a wartime phenomenon is shown by the fact that for every 10 retired workers receiving benefits 11 persons who had benefit rights were at work and not drawing benefits in June 1947.

The net growth from June 1946 to June 1947 in the number of aged persons receiving old-age and survivors insurance benefits—about 256,000—was larger by some 93,000 than the increase of 163,000 in the number of old-age assistance recipients. The rise in the assistance load was nevertheless of major proportions. In June 1947 almost 2.3 million aged persons were receiving old-age assistance, or slightly more than in June 1942, the previous peak. But whereas aged assistance recipients in June 1942 were nearly seven times as numerous as aged beneficiaries of old-age and survivors insurance, the ratio in June 1947 was somewhat less than two to one. Failure of the insurance system to close this gap more rapidly is due in no small part to the fact that limitations in the coverage of the present system have prevented many older workers from building up retirement protection. In addition, inadequate insurance benefits have caused beneficiaries in some cases

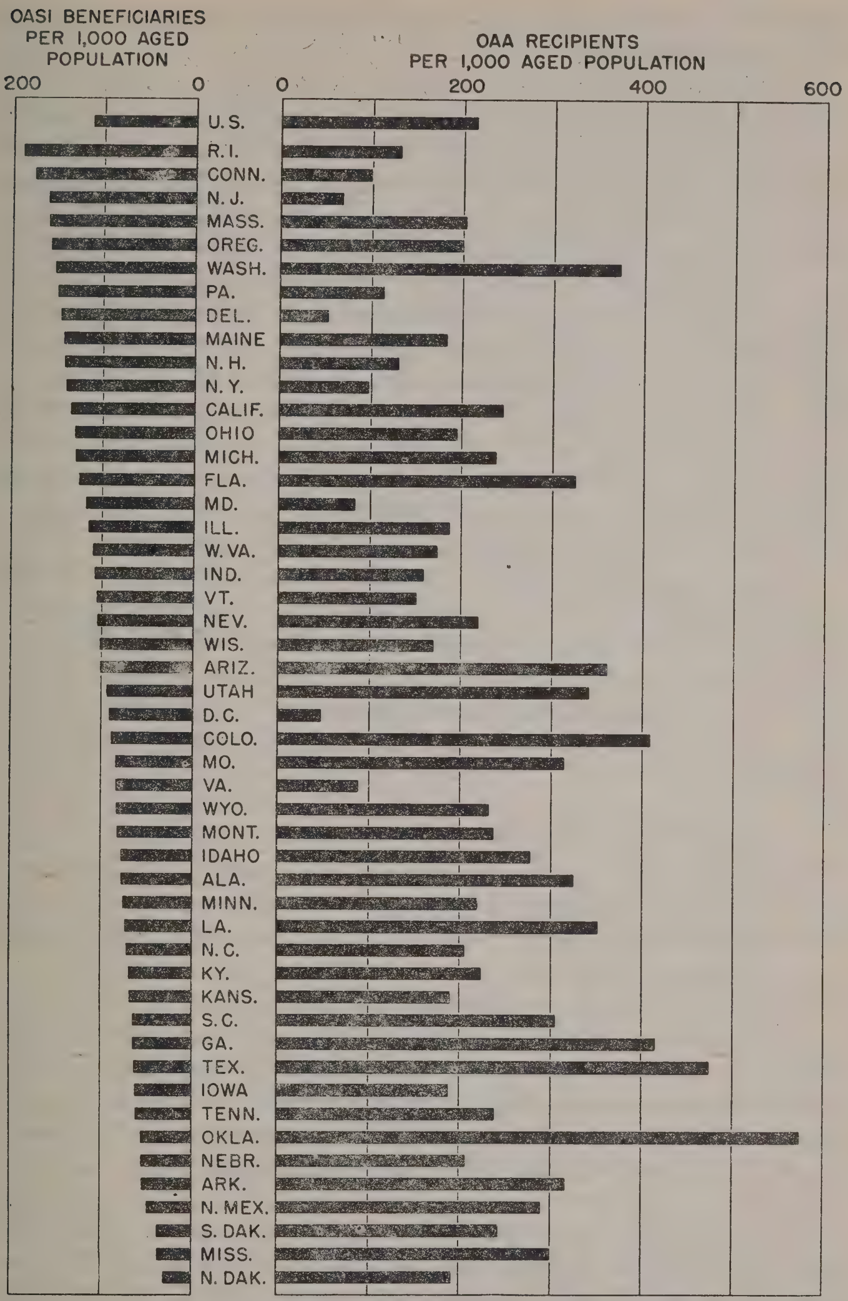


CHART 4.—*Number of aged persons receiving benefits under old-age and survivors insurance*[1] *and number receiving old-age assistance per 1,000 persons 65 years and over in each State,*[2] *June 1947*

to apply for public assistance to supplement their meager income from the insurance program.

---

[1] Primary, wife's, widow's, and parent's benefits in current-payment status at end of month.

[2] Aged population as of Apr. 1, 1947, estimated by Social Security Administration.

The changing relationships of these two programs illustrate the most significant trend in the economic status of the aged. Despite the greater job opportunities afforded during the war, few changes have occurred in recent years in the relative numbers of aged persons with income from employment. Between 1940 and 1947, 30 to 40 percent have been able to count on their own or their husbands' earnings for all or part of their support. The proportion dependent in some measure on old-age assistance has also been relatively stable, varying between 20 and 24 percent during these 7 years. The number benefiting from social insurance and related programs, however, increased about sevenfold, and their proportion in the total group rose from 3 percent to about 18 percent. In some large industrial areas, beneficiaries under old-age and survivors insurance alone comprised as much as 20 percent of the aged population in June 1947, outnumbering old-age assistance recipients in these areas by two or more to one.

This shift and the growing realization of the need for more nearly adequate benefits hold the greatest promise for the gradual improvement in the economic status of the aged envisaged when the Social Security Act became law in 1935. How high the 18 percent will grow depends in considerable measure on extension of coverage of the old-age and survivors insurance program and liberalization of the benefit formula.

Death of the Family Earner

Monthly survivor insurance benefits were awarded to about one-third of the women who lost a husband in 1946–47 and were left with one or more children under 18, and to about one-half of the children under 18 who lost a father.

The corresponding proportions for the total number of widows and orphans in the population are smaller because many survivors lost husband or father before monthly benefits first became payable under old-age and survivors insurance or before he had an opportunity to acquire insured status. In June 1947, for instance, 1 in 5 of the estimated 2.7 million children whose fathers were deceased and about 1 in 10 of the 1.3 million widows with children under 18 were receiving survivor insurance. The difference in the proportions for survivors of recently deceased workers and for the total number of survivors measures in great part the gain in protection as more and more of the population acquire insured status. Gratifying as is this change for the better, there is little cause for satisfaction in the fact that, after 7 years of paying benefits, the program reaches fewer than half the young mothers who have dependent children and who become widowed during the year. Some widows, of course, do not apply for benefits because they are in covered employment; others apply but have their benefits withheld for the same reason. The major factor limiting the proportion of survivors qualifying for benefit is, however, the exclusion from coverage of employment in agriculture, government, and several other fields. The 1946 amendments, providing benefits for survivors of veterans who die within 3 years of their discharge from the armed forces and whose survivors are not eligible for benefits under laws administered by the Veterans Administration, at best afford protection to only a small segment of the unprotected population.

Survivor protection under public auspices is available, of course, to some groups outside the basic old-age and survivors insurance program. In June 1947, about 10 percent of all fatherless children under age 18 and a like proportion of widows under age 65 were beneficiaries of the veterans' program; some others received payments under workmen's compensation legislation. The amendments to the Railroad Retirement Act passed in 1946 established a program of monthly benefits to survivors of insured railroad workers; by June 1947, benefits had been certified for some 3,000 survivor children.

In June 1947 about a million children in the country, including perhaps 300,000 paternal orphans, were receiving aid to dependent children. At the end of 1944, when the rolls reached their wartime low, 640,000 children were receiving assistance. An increase in recipients at a time when the old-age and survivors insurance rolls were also expanding suggests the presence of a large area of potential need which the insurance program cannot be expected to reach as long as coverage is limited to employees in industry and commerce. It is significant, of course, that the number of orphaned children receiving survivor insurance benefits overtook the number on the aid to dependent children rolls in 1943 and that the difference in the numbers reached by the two programs has been getting larger in each succeeding year. Aid to dependent children is by no means a declining program, however. In June 1947, 6 out of 10 children with no living father were neither assistance recipients nor beneficiaries of the old-age and survivors insurance or veterans' programs. Under adverse business conditions, more of this group are likely to be on the assistance than on the insurance rolls.

Disability

The United States is unique among major industrial nations in its lack of a general disability insurance system. Compensation for wage loss due to incapacity is confined in this country to work-connected accidents or diseases in industry and commerce, to service in the armed forces, and to employment in the railroad industry or by government. Two States provide benefits for temporary disability under arrangements similar to unemployment insurance and with the same coverage. In June 1947 these special systems, in the aggregate, reached very few of the 2 to 2½ million persons disabled on an average day and recently in the labor force, who but for their incapacity would be working or seeking work.

Temporary disability benefits have been available under State legislation for most workers in industry and commerce in Rhode Island since 1943 and in California since December 1946. Weekly beneficiaries averaged 5,200 in Rhode Island for the benefit year ended April 1947, and about 18,000 in California for the first half of 1947 under the State program, exclusive of several thousand under approved voluntary plans. These two programs are providing a valuable demonstration of the feasibility of temporary disability insurance under public auspices, and are developing a body of administrative practice which should prove useful to other States considering such insurance.

The permanent disability programs for railroad and government workers, linked to their old-age retirement programs, have been operating somewhat longer. Railroad workers retired for disability numbered 45,000 in June 1947. Somewhat more than 50,000 retired government workers were receiving disability payments, including about 30,000 former Federal workers and about 25,000 former employees of State and local governments. Some of these retirants were 65 years of age or older. Under legislation enacted in July 1946, temporary disability and maternity benefits for railroad employees were scheduled to begin in July 1947.

Two public programs in 1946–47 provided benefits for both long-term and short-term disability—the program for veterans, and workmen's compensation. The first goes back to the earliest days of the Republic and has always been the largest of the disability systems under public auspices. In June 1947 more than 2 million former members of the armed forces, the great majority veterans of World War II, were receiving pensions or compensation for disability. About 275,000 had a disability rating of 80 percent or more.

Workmen's compensation, the second disability program in point of size, has been available in some States for 35 years. Approximately $258 million was paid out in cash benefits for disability in 1946. Data on the number of beneficiaries in the Nation as a whole are unfortunately not available.

Public assistance is provided in all States to specified groups of the disabled who are needy or to their families. In June 1947 some 79,000 persons were receiving aid to the blind under federally aided programs in 47 States, and under wholly State-financed programs in 3 States. Payments for aid to dependent children, financed in part with Federal funds, went to the families of about 75,000 incapacitated men. Since 1945, Wisconsin, under special legislation, has been providing aid to needy persons who are totally and permanently disabled; such recipients numbered fewer than 1,000 in June 1947. A substantial proportion of the 335,000 cases on general assistance in the United States in that month included adults whose working capacity was impaired by illness or disability.

The temporary disability programs—workmen's compensation, the railroad program, and the plans in effect in California and Rhode Island—compensate less than 5 percent of the $5 to $6 billion wage loss due to temporary disability (disability lasting up to 6 months). A similar proportion is covered by payments under health and accident insurance policies. Some of the wage loss is offset by paid sick leave. Most of the wage loss, however, goes uncompensated. Hence the urgency of a national disability insurance program, recommended for adoption by President Truman in a message to Congress in November 1945 and again in May 1947.

Medical Care

Our social security structure is weak in yet another respect, the lack of provision for meeting the cost of medical care on a prepaid social insurance basis. When the family earner falls ill, not only does wage income usually stop but costs are incurred which in cases of severe and prolonged sickness often wipe out all the resources of a family and force it into serious debt.

Perhaps two out of three persons with a major illness need help from others to pay for it. Reluctance to exhaust savings and to borrow against future earnings makes many individuals forego medical attention when it can be most effective, in the early stages of sickness. The result, over the years, is more illness than is justified by the extent of our medical skills, and more personal economic crises than our potential efficiency warrants.

The risk of incurring expenditures for medical care has certain characteristics in common with the risks of disability and the death of the family earner. For all three risks the annual burden on the Nation as a whole can be predicted with a reasonable degree of accuracy. The particular individuals who will be affected, on the other hand, cannot be ascertained in advance. It is known, for instance, that about 4 or 5 percent of the national income is spent on medical treatment furnished by doctors, dentists, and other practitioners, on hospital care, drugs, and appliances, and on public health and medical services by governmental agencies. Perhaps three-fourths of this outlay represents payments by patients or their families to practitioners or agencies providing individualized service. Very few families, on the other hand, budget as much as 3 or 4 percent of their income for health purposes and, when essential care absorbs 10, 20, or even a larger percent of the family's income, acute readjustments in family living standards become necessary.

In other risks, knowledge of the cost to the population as a whole but lack of knowledge concerning its distribution forms the basis for an insurance approach to the problem. An appreciation of the value of insurance led in the second decade of the present century to the abandonment of the old employers' liability law for workmen's compensation. Today all States but one have legislation under which employers in industry and commerce may, and in some States must, insure the cost of treatment for work-connected injury and disease. Similar considerations have stimulated the development of voluntary insurance against the costs of medical and hospital care for nonoccupational illness. In June 1947, about 26 million persons, or 1 in 5 in the United States, were members of voluntary prepayment hospital service plans, and nearly 8 million persons, including some with prepaid hospital coverage, were covered for some or most of the costs of their medical care through voluntary prepayment medical care plans. At the beginning of 1947, about 10.5 million persons, including dependents, were covered to some extent for hospital expenses through group contracts issued by commercial insurance companies; about 8 million of these policyholders and dependents were also covered for surgical expenses through commercial group policies.

Valuable as these developments have been, they fall short of meeting the need of the American people for a comprehensive health insurance program. Only a minor proportion of the total volume of illness is of work-connected origin. The voluntary plans offer partial protection, at best, in the great majority of cases to which they apply. Despite their rapid growth in recent years they fail to reach most of the population, especially those most in need of prepaid care.

In a special message to Congress in November 1945 President Truman proposed the adoption of a long-range health program for the Nation, including provision for a national health insurance system. The need for health insurance was stressed by the President in his message on the state of the Union, his budget message, and his economic report submitted to the new Congress in January 1947. On May 19, 1947, in another special message, the President reaffirmed his belief in the importance of national legislation to establish health and disability insurance. Such insurance, he said, forms an integral part of a broad national plan that includes as well an expansion of the Nation's public health services, the construction of additional hospitals, and added support for medical education and research.

Wide public interest in the issues involved has focused for the past year on the hearings conducted by the Senate Committee on Labor and Public Welfare (formerly Labor and Education) on bills embodying the President's recommendations or offering alternative proposals. Two major viewpoints have emerged from the testimony offered. One sees medical care costs as a problem for a relatively small group in the population, and proposes Federal aid to the States to help them provide free or part-free medical care to needy persons and persons of low income. Persons in moderate or better circumstances are expected to make their own arrangements, as at present.

In the other view, the problem exists for the great majority of people and cannot be solved by measures which condition eligibility for service on a means or income test. The indicated remedy must be sufficiently broad in coverage to reach eventually all the people in need of medical care; it should make provision for their participation in its cost. These specifications, in the opinion of the Social Security Administration, point to health insurance.

Health insurance, in essence, is merely a different method of paying for medical care, but it has a basic advantage over existing methods of individual payment. It enables families that are normally self-supporting to pay for the medical care they need through small, regular contributions to a fund from which payments are made to the hospitals, doctors, and others who furnish services to those who need them. By removing the economic barrier, it can make medical care readily accessible when and as it is needed. With a comprehensive system of insurance, covering all wage earners and their dependents, between 85 and 90 percent of the entire population could be protected. Agreements with State public assistance agencies and other groups could extend this protection to nearly all the remaining 10 or 15 percent.

With assurance that medical bills will be paid, patients will be freer to seek the care they need, and hospitals and medical practitioners will be freer to make use of the best that modern science has to offer and will have new incentive and opportunity to improve standards of medical service. Health insurance would encourage the expansion of medical personnel and facilities in areas now inadequately served because of the cost barrier. A considerable stimulus could thereby be given to the construction of needed hospitals and health centers and to the training of additional physicians, nurses, and other medical practitioners and their location where they are needed. At the same time, existing personnel and facilities could be utilized to the full, under conditions that preserve free choice by doctor and patient and that provide alternative methods of remuneration for professional services.

Such a health insurance program, the Social Security Administration believes, should be national in scope, to avoid the disadvantages inherent in State inequalities in fiscal resources, to encourage better distribution of medical personnel and facilities, to provide continuity of insurance protection for persons who move across State lines, and to reduce recordkeeping to a minimum. In its administration, however, health insurance can and should be highly decentralized, with emphasis on adaptation to local needs and conditions. A comprehensive national system could authorize use of State and local official agencies—as well as private agencies, when they can contribute to administrative efficiency and economy—in administering the program, and it could also make use of public and private agencies, facilities, organizations, groups, and individuals in furnishing services to insured persons. In any event, subject to national standards, administration of benefits should be decentralized under arrangements worked out locally with doctors, hospitals, and others concerned. To assure maximum utilization of professional skills and experience, provision should be made for the participation by professional groups in the determination of policies in each area of administration— national, State, and local.

Health insurance, in these terms, is not socialized medicine. Socialized medicine is a public salaried medical service. Health insurance, on the other hand, uses the existing system of private competitive practice. Instead of direct payment by the individual to physician or hospital, payment is made out of an insurance fund to which all insured persons have contributed and from which they all benefit. Under such a system the patient is and should be free to choose his doctor from all who elect to participate in the system and to change doctors if he wishes. Doctors also are and should be free to reject patients. Individual doctors and groups of doctors would be free to choose the method by which payments should be made to them from the insurance fund. Moreover, such a system of health insurance need not, and in the opinion of the Social Security Administration should not, supplant many existing group arrangements for medical care for persons who may wish to use the services they offer.

The present debate concerning the best method of attacking the problem of adequate medical care for wage earners and their families is taking place against a background of increasing acceptance of governmental responsibility in the field of health. During the nineteenth century, Federal health functions were confined chiefly to quarantine activities and the medical care of members of the armed forces, disabled veterans, other wards of the Federal Government, and seamen. Today such functions include, in addition, grants to States for public health services, venereal disease control, tuberculosis control, maternal and child health services, and care of crippled children; grants-in-aid to universities, hospitals, and laboratories for research; demonstration projects in the fields of nutrition and the control of heart disease and diabetes; research in cancer, infectious diseases, physiology, and industrial hygiene; and medical care of Federal employees with work-connected injuries and of lepers and drug addicts.

Most recent additions to these functions are grants-in-aid to the States for hospital surveys and construction, and for demonstrations and training in mental hygiene. By the end of June 1947, 41 States had submitted requests for funds for hospital surveys under the Hospital Survey and Construction Act of 1946.

This expansion in the Government's health activities reflects a growing realization of the Nation's stake in the health of the American people. The current differences of opinion on methods of solving the economic problems of medical care are of value in highlighting the seriousness of those problems and in setting the stage for the next advance—effective action to provide protection against insecurity caused by sickness.

OLD-AGE AND SURVIVORS INSURANCE

FOR THE FIRST TIME since the Social Security Act Amendments of 1939, Congress in 1946 gave general consideration to proposed changes in the social security programs. The resulting amendments of 1946 helped meet one of the serious gaps in old-age and survivors insurance by instituting protection for the survivors of certain veterans of World War II, and made a number of technical improvements in the program. Further substantial revisions were left for additional congressional study and future action.

In 1946, the first full year of postwar production, the number of persons who earned wages in covered employment exceeded the 1943 wartime peak. Also, the total amount of 1946 taxable wages exceeded the 1944 high. By January 1, 1947, more than 8 million persons were permanently fully insured, which means that they or their survivors can qualify for benefits regardless of the workers' future covered employment. More than 33 million other workers were either fully or currently insured. By the end of the fiscal year, 1,832,000 beneficiaries were actually receiving monthly payments. Monthly benefits and lump-sum payments certified in the fiscal year reached the record total of $435 million. However, because of the limited coverage of the program, out of a labor force of about 60 million, some 15 or 20 million at the beginning of June 1947 were in jobs that provided no credit toward old-age and survivors insurance.

Old-Age and Survivors Insurance in 1946–47

Amendments of 1946

The Seventy-ninth Congress during much of the first half of 1946 carried out an extensive study of the need for amendments to the

Social Security Act. The Ways and Means Committee of the House of Representatives and the Senate Finance Committee decided not to recommend major changes but to concentrate on certain provisions. These recommendations were embodied in a bill which was signed by the President on August 10, 1946. Reports of both committees on that bill, however, recognized the need for early action toward extensive changes in the old-age and survivors insurance program.

One of the provisions of the Social Security Act Amendments of 1946 was a new section of the act (section 210) to provide special protection to survivors of certain veterans of World War II for a period of 3 years following their discharge from military service. Before the adoption of the new section there had been a serious gap in the protection afforded by old-age and survivors insurance to millions of persons who had served in the armed forces during the war. They had been inducted from civilian life, often from employment covered under old-age and survivors insurance. Since their service in the armed forces was not covered by the program, not only were they unable to build up their benefit rights further while in the service but in many cases, because insured status is based on length of covered employment, they actually lost whatever protection they had previously acquired.

As long as they remained in military service the situation was not serious, because the survivors of persons who die while in service are generally eligible for monthly benefits under laws administered by the Veterans Administration. Such benefits are not payable, however, if the veteran died after discharge, unless he had incurred a service-connected disability. Hence the most immediate need of the World War II veteran was for some form of protection for his dependents during the period immediately after his discharge from service, when he would no longer be protected under existing veterans' legislation and would not have had time to regain or acquire insured status under old-age and survivors insurance by working in covered employment.

Under the new section 210, a veteran who meets certain service requirements and who dies within 3 years after discharge from service is deemed to have died a "fully insured" individual with an "average monthly wage" of not less than $160. Thus, in most cases, the survivors of a veteran who dies within 3 years after discharge are assured of benefits under old-age and survivors insurance. These benefits are not payable if the survivor is eligible for compensation or pension under laws administered by the Veterans Administration. Three years was considered sufficient to allow the veteran to regain insurance protection on the basis of his earnings in civilian employment. Adoption of section 210 thus bridges one gap in the protection of veterans.

Of even greater significance were the 1946 amendments in the railroad social insurance system. As a result of these amendments, railroad workers now have the benefit of a well-rounded program which includes old-age, survivor, disability, unemployment, sickness, and maternity insurance. Moreover, the new survivor benefits provided for railroad workers are coordinated with the survivor benefits payable under old-age and survivors insurance. Thus the amendments to the Railroad Retirement Act have had a direct effect on the old-age and survivors insurance program.

Under the new provisions, upon the death of an individual who had both railroad employment and employment covered under old-age and survivors insurance, the wages earned in both types of employment will be combined in determining the eligibility of his survivors for benefits and the amount of the benefits. Benefits based on earnings under both systems will be payable under only one system. In general, if the wage earner had railroad employment during a specified period before his death, the railroad system will pay the benefits; otherwise they will be payable under old-age and survivors insurance.

Before this amendment the survivors of a railroad worker could generally receive only a lump sum. Thus the present law represents a substantial increase in the security of railroad workers. In addition, the security of workers regularly covered under old-age and survivors insurance has been enhanced in that benefits for their survivors will be increased by inclusion of credits from any earnings in railroad employment. Moreover, the provision for coordination avoids the gaps and duplications in protection which would otherwise exist. With two separate and uncoordinated systems, the survivors of an individual could in some cases fail to qualify for benefits under either, even though the wage earner had spent a substantial aggregate amount of time in covered jobs. Some individuals, on the other hand, might qualify for substantial benefits under both systems. Perhaps the most frequent case would be that of the person who would qualify for unduly small benefits under one system because all his employment could not be taken into account. The new law eliminates these inequities.

Certain problems in the relationship of the two programs still remain, however. No action has yet been taken to coordinate the retirement benefits of the two programs, so that gaps and duplications in protection can still occur in that area. This problem is discussed later in this chapter.

The Social Security Act Amendments of 1946 also corrected certain minor flaws and inequities in the old-age and survivors insurance program, simplified its administration, and provided minor liberalizations of qualifying conditions. A great saving of time for field office personnel, for example, will result from the fact that the nonfeasibility of school attendance for beneficiary children aged 16 or 17 no longer has to be established.

The number of separate claims for lump sums has been reduced by making the spouse who was living with the worker at the time of his death the only relative to whom a lump sum can be paid without regard to payment of funeral expenses. It is no longer necessary to obtain claims from several children when one child has paid for the funeral, or from both parents of a wage earner when the father has met the expenses and applies for the lump sum. In 1946, 134 awards had to be made for every 100 deceased wage earners on whose wage record a lump sum was paid. By the second quarter of 1947, payments were being awarded to only 112 persons for every 100 wage earners.

Persons who experienced wartime difficulties with overseas communications can now receive lump-sum benefits not previously paid on the wage records of insured wage earners who died abroad after December 6, 1941, and before August 10, 1946, provided they file claims within 2 years of the latter date.

Many eligible persons who reach retirement age lose benefits because they do not file claims promptly. In such cases it is now possible to pay up to 3 months' benefits retroactively. Under another amendment, beneficiaries may now have their monthly payments computed at the highest amount to which their wage records would have entitled them at any time since they first reached age 65 and became eligible for benefits.

The 1946 amendments changed the definition of a dependent parent from one who was "wholly" to one who was "chiefly" supported by a wage earner. Largely as a result of this revision, 1,975 parent's benefits were awarded in the first half of 1947, as compared with 1,767 for the whole year of 1946.

The definitions of "wife" and "child" were liberalized to provide that, in the case of a retired worker, the wife, stepchild, or adopted child may qualify for supplementary benefits if the marriage or adoption had occurred 36 months before the worker filed for benefits; for surviving dependents, the relationship must have continued for 12 months before the wage earner died.

Further protection to children was afforded by a provision making it possible to continue paying benefits to an orphan adopted by a grandparent, stepparent, aunt, or uncle after the wage earner's death.

The amendments also allow the quarter in which the worker dies, if it is a quarter of coverage, to count toward currently insured status.

Workers and Their Wage Credits

The estimated 3 million persons who received their first wage credits in the calendar year 1946 brought the total number of persons who had received wage credits during the first 10 years of the insurance program to 79.5 million. An estimated 75.5 million of them were living at the end of 1946; they included nearly 2.8 million persons aged 65 and over.

In 1946, the first full year of postwar production, the number of persons who worked in covered employment at some time during the year—estimated at 49.5 million—was 3.1 million more than in 1945 and almost 2 million more than at the wartime peak in 1943.

Total wage credits reached an all-time high of $67.8 billion in 1946—an amount 7 percent above the previous record of $63.4 billion in 1944. The average taxable wage per worker was $1,370, almost the same as in 1944.

Insurance Status

An estimated total of 34.7 million living workers were fully insured for old-age and survivor benefits at the beginning of 1947.[1] Of these, approximately 8.2 million persons had acquired sufficient quarters of coverage to remain fully insured throughout their lifetime without further covered employment. This number included 1,588,000 work-

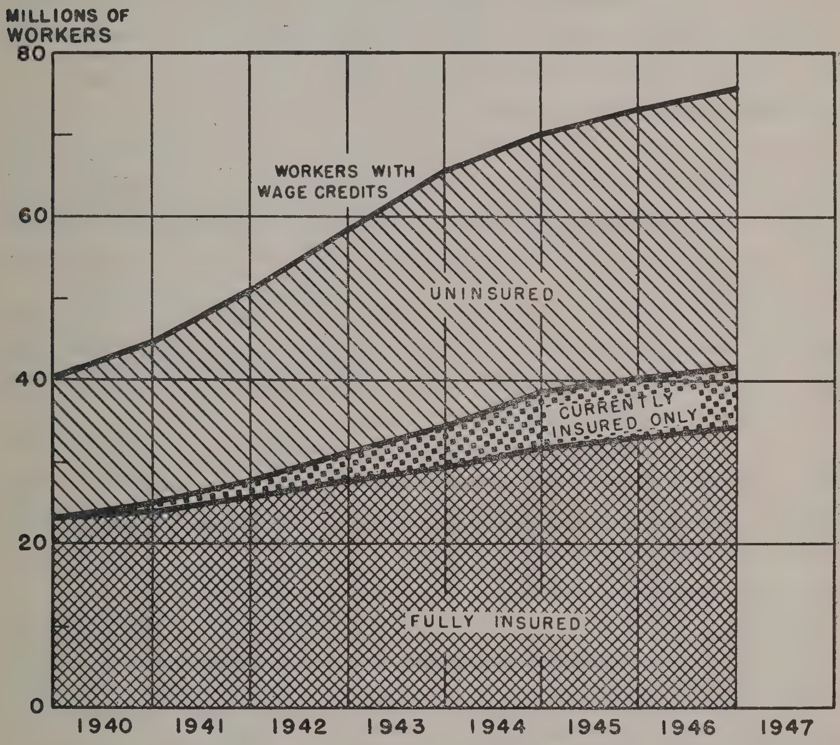


CHART 5.—*Living workers with wage credits under old-age and survivors insurance, by insurance status at beginning of year, 1940–47*

ers aged 65 and over, of whom 702,000 were currently receiving benefits; the remaining 886,000 were not receiving benefits, for the most part because they were still working in covered jobs.

---

[1] Not including veterans who were deemed fully insured under section 210 only.

In addition to the 34.7 million fully insured, 6.7 million living workers were currently but not fully insured on January 1, 1947. These 41.4 million insured persons comprised 55 percent of all workers who were living on January 1, 1947, and had held covered jobs at any time during the 10 years 1937–46.

A large majority of the uninsured workers with wage credits had been in covered jobs for only a brief period. Many were young people under 20 years of age who had recently entered covered jobs. A considerable proportion were women who had withdrawn from covered employment, many of whom probably were no longer in the labor force. The uninsured workers had received cumulative wage credits by the beginning of 1946 that averaged only $821 per worker, as compared with an average of $10,000 for fully insured workers and $4,211 for workers currently insured only.

Applicants for Account Numbers

Slightly more than 3 million new accounts were established in 1946, bringing the cumulative total of accounts at the end of the year to 86.8 million. An estimated 77.5 million were living persons aged 14 and over, constituting slightly more than 71 percent of the estimated population in those ages.

The number of new accounts issued in 1946 continued the decline which had occurred each year after the wartime peak of 7.6 million in 1942. As a result of the large number of applications for accounts from veterans and the curtailment of inductions into the armed forces, men and boys represented a larger proportion of all applicants (47 percent) than in any other year since 1941. The 93,000 accounts established for persons aged 60 and over, on the other hand, represented the smallest number on record.

Beneficiaries and Their Benefits

From 1.5 million on June 30, 1946, the number of persons actually receiving monthly benefits rose steadily each month of the fiscal year to 1.8 million on June 30, 1947; the amounts paid in benefits increased correspondingly from $28.2 million to $35.1 million. Of the 1.8 million beneficiaries, 43.5 percent were retired aged workers, 13.4 percent were wives of these workers, 8.0 percent were aged widows of deceased workers, 27.2 percent were children of retired or deceased workers, 7.4 percent were widows who were caring for children entitled to benefits, and 0.5 percent were aged parents of deceased workers who had left no widow or child who could become entitled. In all, persons 65 years or over comprised 65.4 percent of the total group receiving benefits at the end of the fiscal year, as against 62.7 percent on June 30, 1946.

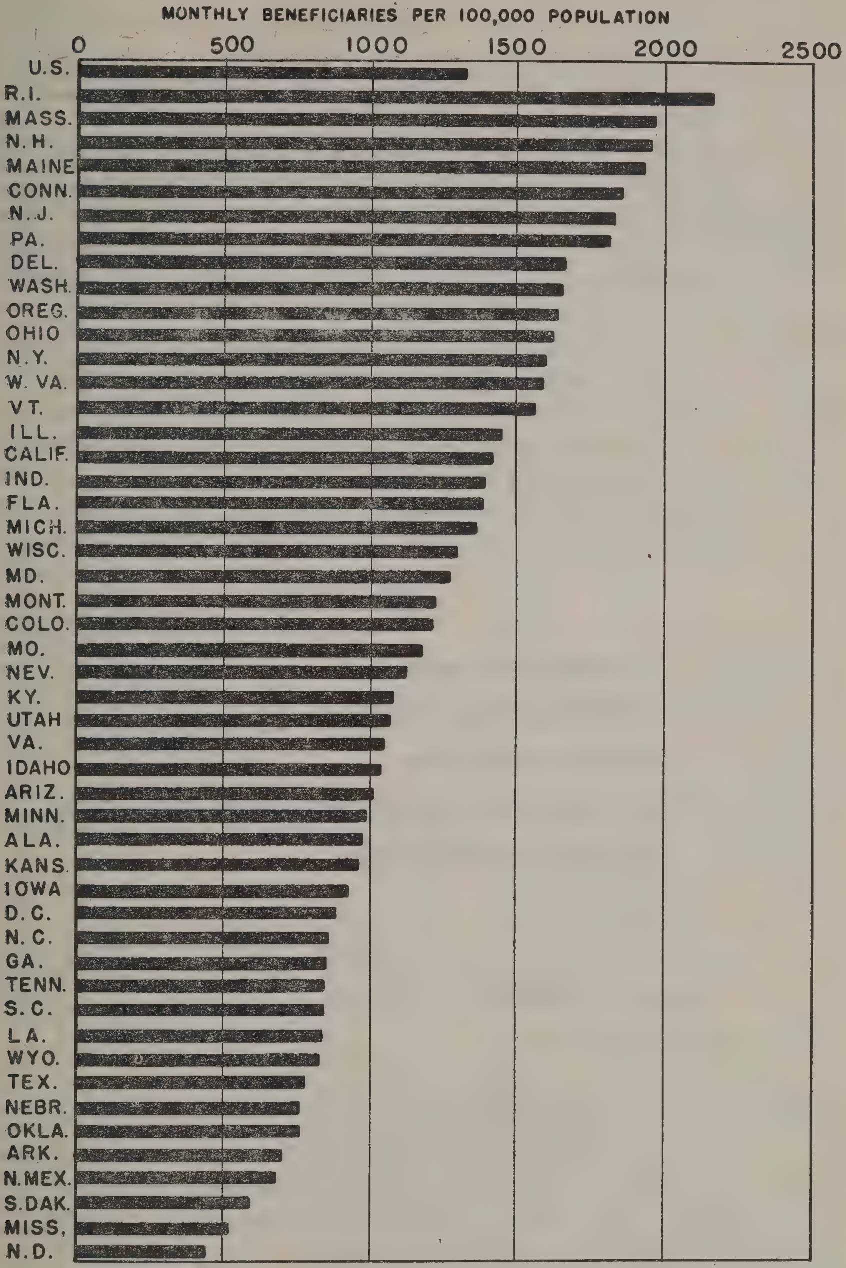


CHART 6.—*Number of persons receiving monthly benefits under old-age and survivors insurance, June 30, 1947, per 100,000 population in each State*[1]

---

[1] Total civilian population as of July 1, 1946, from the U. S. Bureau of the Census.

The 1.8 million beneficiaries represented 1.2 million different families. The male worker was the only person receiving monthly benefits in 35 percent of the total number of families and the female worker, in 8 percent. Families consisting of a retired worker and his aged wife, both of whom were receiving benefits, made up 20 percent of the total. Families in which the beneficiaries were a widow only, or one or more children, or a widow and one or more children, each accounted for approximately 12 percent of the total number of families. The average family benefit ranged from $13.10 for a family in which only one child was receiving a survivor benefit to $39.20 for a family composed of a retired worker and his aged wife and to $51.80 for a family consisting of a widow and three or more child beneficiaries.

Monthly benefits and lump-sum payments certified in 1946–47 reached the record total of $435 million. Most of the increase was accounted for by the $406 million certified for monthly benefits, since the $29 million for lump-sum death payments was only slightly greater than the amount in 1945–46. The $265 million certified for payment of monthly benefits to retired workers and their aged wives and young children represented 61 percent of the total amount certified, a larger proportion than in any previous fiscal year.

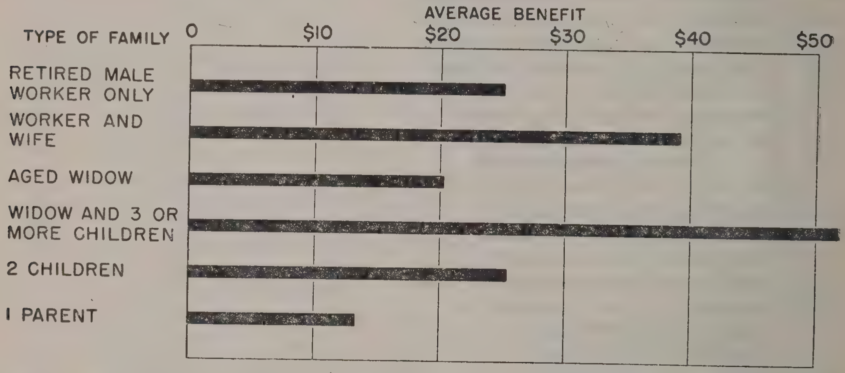


CHART 7.—*Average monthly old-age and survivors insurance benefits in current-payment status, by type of family, June 30, 1947*

The $435 million included payments to survivors of World War II veterans under section 210 of the Social Security Act, which were first made in September. In the last 10 months of the fiscal year, $1.3 million was certified for monthly survivor benefits and $1.6 million for lump-sum death payments under this section.

Beginning with January 1, 1947, survivor benefits based on a deceased worker's combined earnings from employment covered by either the old-age and survivors insurance system or the railroad retirement system became payable. By June 30, benefits had been awarded under old-age and survivors insurance to survivors of more than 1,600 deceased workers who had earnings under both programs.

Appeals

During the fiscal year, 1,658 requests for hearings were filed; those requests voiced appeals from administrative decisions concerning eligibility for benefits, benefit amounts, suspension of benefit payments, or amounts of wage credits. In addition, 217 appeals were carried over from the preceding year. Hearings were completed in 1,519 appealed cases during the year, and the referees disposed of 1,500 cases, including some heard previously. Approximately one-third of these decisions modified, in the claimants' favor, the original determinations of the Bureau of Old-Age and Survivors Insurance. At the close of the fiscal year, 22 civil actions concerning old-age and survivors insurance claims were pending in the courts; 7 of the 9 such cases decided during the year upheld the Administration's position. Of the 35 court decisions that have been rendered since the appeals provisions of the 1939 amendments went into effect, 27 upheld the Administration's action.

Administrative Developments

Recent decisions of the United States Supreme Court strengthened the position of the Social Security Administration concerning the concept of the term "employee." Because that term is not defined in the Social Security Act, it has been variously interpreted by the courts and by the agencies administering the benefit and tax provisions of the law. In the past, situations involving the question whether an employer-employee relationship exists have been resolved by a strict application of the common law "control test." The Social Security Administration has long felt, however, that such determinations were unduly restrictive because they failed to consider the purpose for which the statute was enacted and the economic relationship of the alleged employee to the individual or organization for which he performed service.

In its decisions in the cases of *United States* v. *Silk*, *Harrison* v. *Greyvan Lines, Inc.*, and *Bartels* v. *Birmingham*, the Supreme Court pointed out that, in the application of social legislation, employees are those who as a matter of economic reality are dependent upon the business to which they render service. In the *Silk* case, the Court held that the employer-employee relationship, which determines the liability for employment taxes under the Social Security Act, was not to be determined solely by the degree of control that an alleged employer might or could exercise over the details of the service rendered to his business by the worker or workers. In addition to that factor, the Court held, administrative and judicial determinations as to the coverage of the Social Security Act must consider the permanency of the relation, the skill required in performance of the work, the investment in the facilities for work, and opportunities for profit or loss from the activities. Moreover, the Court further indicated, this list of factors is not necessarily complete and no single factor is controlling. Rather it is the total situation that must be considered.

These decisions by the Supreme Court should be helpful in making status determinations in the future. They should enable the Social Security Administration to include in coverage all service relationships that fall short of being bona fide independent businesses. The helpfulness of these decisions would not be lessened if coverage were extended to the self-employed. Distinguishing between employees and self-employed persons would remain important, though the issue would concern primarily the manner in which contributions are to be made and the amount of such contributions, rather than the absence or presence of protection under the program.

Legislation enacted during the early part of the fiscal year necessitated the formulation of new regulations and procedures and the training of personnel to apply them. The addition of section 210 required coordination of policy and procedures with the Veterans Administration and the various departments of the armed forces and establishment of procedures within the Bureau of Old-Age and Survivors Insurance for handling veterans' cases. Close working arrangements were also made with the Railroad Retirement Board to correlate the administration of benefits to survivors of railroad workers, including interchange and combinations of earnings records for computing insured status and benefits, and agreement on the technical details of the development and adjudication of claims involving railroad employment. The Social Security Administration will continue payments to beneficiaries transferred to the railroad retirement system until their applications for annuities under that system are finally adjudicated. In making such payments the Administration is considered as acting on behalf of the Railroad Retirement Board, with the understanding that the Board is to reimburse the Administration for all payments so disbursed. On final adjudication of the annuitant's claim under section 5 of the Railroad Retirement Act, any balance due him is paid, or excess amounts are set off against future payments, by the Railroad Retirement Board.

During the war years, many potential claimants in foreign countries were prevented from filing timely applications for benefits and lump sums, and field offices had accepted applications filed on their behalf without commitment as to the effect of such filing. The Administration ruled, early in the fiscal year, that such an application filed before January 1, 1947, would be effective to establish the filing date if the claimant himself filed a claim before January 1, 1948.

Protection was also extended during the fiscal year 1947 to other claimants who fail to file timely applications for benefits. According to Bureau studies, persons who inquire about benefits payable to them, or to a close relative, sometimes fail to file an application at once on the standard form, when there is some doubt about their eligibility. As a result they may lose some months' benefits if it develops later that they were eligible. The Bureau makes a record of the request, and the date the record is prepared may now, under certain conditions, be used as the effective date of filing an application. Illustrative of the groups so protected are the survivors of veterans or former railroad workers whose right to payments from the Veterans Administration or the Railroad Retirement Board is uncertain at the time they request benefits under old-age and survivors insurance.

Preparation of a digest of selected rulings of the Office of the General Counsel and the Bureau of Old-Age and Survivors Insurance, and of Appeals Council and court decisions, was begun this past year.

In March and April 1947, temporary offices were established and special procedures were devised to speed up the handling of claims resulting from the Centralia Mine and Texas City disasters. The first benefit checks in the Texas City disaster, for example, were delivered just 11 days after application was made.

Administrative Costs

The rolls of beneficiaries entitled to monthly payments have grown steadily since monthly benefits became payable in 1940. On June 30, 1947, the number of beneficiaries receiving monthly benefits exceeded the total in June 1946 by 22 percent; monthly benefits and lump sums certified for payment during the fiscal year 1947 totaled 29 percent more than during the preceding year. The 772,000 monthly benefits and lump-sum payments awarded during the year were only slightly fewer than the preceding year's record high of 787,000. An all-time high was reached in the number of suspensions, reinstatements, changes of address, and other actions required in maintaining the benefit rolls. The volume of work in establishing and maintaining accounts of employees was about 4 percent heavier than in the fiscal year 1946.

The total administrative cost directly attributable to the old-age and survivors insurance system during the fiscal year 1947 equaled 2.8 percent of the contributions received during the year, while it represented 9.6 percent of benefit payments. This total included costs incurred by the Treasury in collecting contributions under the Federal Insurance Contributions Act, managing the trust fund, and issuing benefit checks, as well as all administrative costs of the Bureau of Old-Age and Survivors Insurance and the Appeals Council and all other costs of the Social Security Administration and the Federal Security Agency directly attributable to the program.

The Bureau's administrative costs have declined from 2.6 percent of contributions collected in the fiscal year 1941 to 1.9 percent in 1947. These costs included expenses of the central offices of the Bureau in Baltimore, the greater part of which represented the costs of maintaining centralized wage records of the 86.8 million accounts established as of January 1, 1947, in addition to the administrative costs of 6 area offices, 464 field offices, 6 branch offices, 2,052 itinerant stations, and 13 detached official stations.

During the fiscal year, 184.6 million wage items and 9.8 million tax returns were received from about 2.8 million employers.

Financing the Program

In August 1946, Congress acted (Public, No. 719, 79th Cong., 2d sess.) to extend through the calendar year 1947 the 1-percent contribution rate on taxable wages payable by workers and employers since the beginning of the program. This action postponed the scheduled increase in the contribution rate to 2½ percent.[2]

At the end of the fiscal year 1947, assets of the Federal old-age and survivors insurance trust fund totaled $8,798 million, an increase of $1,157 million during the year. Appropriations of contributions under the Federal Insurance Contributions Act amounted to $1,459 million, more than in any previous fiscal year, while interest on investments totaled $163 million. Disbursements from the fund amounted to $426 million for payment of benefits and $41 million for administrative expenses in the Social Security Administration and other Federal agencies. Except for $56 million set aside to meet current withdrawals, all assets in the trust fund on June 30, 1947, were invested in Government securities at an average interest rate of 2.078 percent.

No contributions are collected to finance benefits paid survivors of veterans under section 210. However, paragraph (d) of the section authorizes appropriations to the trust fund "from time to time [of] such sums as may be necessary to meet the additional cost, resulting from this section, of the benefits (including lump-sum death payments) payable under this title." By June 30, 1947, additional benefit payments under section 210 totaled $2.9 million, and discussions were under way with the Bureau of the Budget concerning an appropriation to the trust fund for such payments.

Although the 1946 amendments to the Railroad Retirement Act have no specific provision for the allocation of costs between the railroad retirement and old-age and survivors insurance systems, the legislation stipulates that not later than January 1, 1950, the Railroad Retirement Board and the Federal Security Administrator "shall make a special joint report to the President to be submitted to Congress, setting forth the experience of the Board in crediting wages toward awards," and the experience of the Social Security Administration in crediting compensation toward awards "and their recommendations for such legislative changes as are deemed advisable for equitable distribution of the financial burden of such awards between the retirement account and the Federal old-age and survivors insurance trust fund."

---

[2] The Social Security Act Amendments of 1947 held the contribution rates at 1 percent through 1949, and provided for rates of 1½ percent in 1950 and 1951 and 2 percent beginning in 1952.

Improving the Program

Changes brought about by the legislation enacted in 1946 strengthened the program and in certain instances increased the protection offered. But the testimony before the House Ways and Means Committee in hearings that preceded the passage of the Social Security Act Amendments of 1946 brought out the need for extension of old-age and survivors insurance coverage and the desire of persons now excluded to be brought under the system, and the value of a fundamental review of all phases of the program. In the light of those hearings and after years of careful study of the extent to which the insurance program is meeting the best interests of the people for whom it exists, the Social Security Administration is increasingly convinced that the program should be substantially amended if it is to supply an adequate measure of security for the American people.

Extension of Coverage

Old-age and survivors insurance has already attained a significant place in the economic and social life of the Nation. Nevertheless the unfavorable effects of the limited coverage of the program are apparent. Of 75.5 million living persons with wage credits at the beginning of 1947, 34.1 million, or more than 2 in 5, were neither fully nor currently insured on the basis of their wage records and hence not protected under the program.

Of the 41.4 million individuals who had insured status at the beginning of 1947, 8.2 million persons were permanently insured. Even if these workers were to leave covered employment permanently, they will be eligible for retirement benefits at or after age 65; and in the event of death, their survivors will qualify for monthly benefits or lump-sum death payments. Even for these workers, however, shifting from covered to noncovered occupations has disadvantages. Any time spent in noncovered employment will result in a reduction of their "average monthly wage" and, consequently, of the amounts they will receive when they or their families become eligible for benefit payments.

More than half of the persons who were permanently insured as of January 1, 1947, had acquired that status by earning 40 "quarters of coverage" in covered employment. The rest, who had acquired permanently insured status with fewer than 40 quarters, were all 55 years of age or older on January 1, 1947. As the program matures, a larger proportion of the permanently insured individuals will be young men or women who have obtained the full 40 quarters. Many of them are likely to become employees in noncovered occupations or go into business or professional practice of their own. They will thereby reduce the amount of the monthly benefits to which they will become entitled.

For the 33.2 million who, as of January 1, 1947, were either fully or currently insured but who had not acquired permanently insured status, leaving covered employment will not only reduce their future benefits but may actually wipe out their and their survivors' rights to benefits under the program.

Extension of the system to include noncovered occupations would eliminate the inequities resulting from the division of the economic system into covered and noncovered segments and would afford protection to millions of workers now covered for only a portion of their gainful activity.

Experience gained in operation of the system for more than a decade indicates that the excluded groups can successfully be brought into the present program. After prolonged study of the ways in which extended coverage could be administered, several feasible plans have been developed for including the group that at the beginning seemed to offer the most serious administrative problems—nonfarm self-employed persons, farm operators, farm workers, and household workers. The Social Security Administration is convinced that coverage of all excluded groups is socially and economically desirable and urges that the program be extended at the earliest possible date to all the gainfully employed. Not only would full coverage benefit those individuals now excluded but, by permitting as wide a spread of risks as possible, it would also enable the system to underwrite a measure of economic security for virtually all the population.

Special considerations involved in covering each of the excluded groups and possible methods of effecting coverage are summarized in the paragraphs that follow.

Self-employment.—Both farm operators and the urban self-employed are in many instances contributing under the present program. According to the agricultural censuses of 1940 and 1945, about 20 percent of all farm operators earn wages in nonfarm employment in the course of a year. A substantial part of this employment is in covered industries, and it is likely that during a working lifetime a considerable proportion of the farm operators will have wage credits under old-age and survivors insurance. Much of this covered employment is seasonal, however, and so distributed that only a small minority of farm operators gain insured status. Those who do may lose it as they become older and work less often away from their farms. The families of those who are insured at death will receive smaller benefits than they would be entitled to under a program with complete coverage. The retirement benefits for the individuals who qualify are likely to be little more than the minimum statutory amount.

A survey made by the Bureau of Old-Age and Survivors Insurance in Philadelphia in 1944 indicates that only about one-tenth of the urban self-employed work on their own account throughout their working years. The remaining nine-tenths work for wages for some years before they enter self-employment, and much the greater part of this work is in covered occupations. If this survey is indicative of the situation in other cities in the country, it appears that most of the younger people among the urban self-employed have previously made contributions under the insurance program, and that ultimately this will be true of the self-employed group as a whole. Once established in self-employment, however, they do comparatively little work for wages, the survey reveals. After a period of time, therefore, those who have not become permanently insured will lose their insured status, and the prospective benefits of those who remain insured will get smaller and smaller as time goes on.

The desirability of covering the self-employed is emphasized by the increase in the size of the urban group. A recent census report shows about 6 million self-employed in nonfarm industries in the spring of 1947 and 4.8 million early in 1940. The total number of persons engaged in nonfarm self-employment at some time in 1946 is estimated at 7.2 million as against 5.6 million in 1940 and 6.0 million in 1945. Whether this movement away from employments now covered by the program proves to be permanent or not, it is adding greatly to the number of persons who, though they make some contributions to the program, may derive little or no benefit or whose benefits will be smaller than if all their earnings could count toward benefits. Subject to the same hazards of loss of income due to old age or death as are wage earners, the self-employed are becoming increasingly aware of the value of social insurance against these risks and on many occasions have expressed their desire for protection.

The fear that serious administrative difficulties will be encountered if old-age and survivors insurance were extended to the self-employed is no longer valid, since several possible methods of obtaining earnings reports and contributions have been developed. It would, for example, be feasible for farm operators and other self-employed persons to file annual reports for social security purposes together with their Federal income-tax returns. Under this plan, all individuals with a gross income of $500 or more and a "net income from self-employment" of $200 or more could be covered under old-age and survivors insurance. "Net income from self-employment" would be derived from two schedules of the Federal income-tax return—profit (or loss) from business or profession (Schedule C) and income from partnerships (line 1 of Schedule E). The figures in these schedules would be transferred to an accompanying form for computing social security contributions. The use of these schedules excludes, in addition to compensation for services rendered as an employee, certain types of income that are predominantly investment income, such as interest, dividends, rents, royalties, annuities, pensions, income from estates and trusts, and the like. In a year comparable to 1944, it is estimated, this approach would include about 85 percent of the nonfarm self-employed and 75 percent of the farmers.

Determination of the rate at which the self-employed should pay contributions raises a question whether they should pay the employee rate only or the combined employer-employee rate. One of several possible solutions to this problem would be to require contributions at the single rate on the first $500 of net income from self-employment and at the combined rate on the balance up to the maximum. This compromise would be of particular help to persons with low incomes and would result in only a small sacrifice of revenue to the trust fund.

Proposals have been made that the self-employed be included according to a voluntary plan, under which any self-employed person, regardless of his income, could elect coverage if he so desired. The Social Security Administration is prompted to point out once again the undesirability of appending voluntary coverage on an individual basis to the existing compulsory insurance system. Experience shows that a voluntary program does not provide a sufficient distribution of risks so that social insurance may be furnished at a reasonable rate. Only those who can expect an unusually large return for their investment are likely to participate voluntarily. In addition, even this limited group is likely to refrain from contributing in years when the contributions (considered in relation to the benefit formula) would not yield a highly profitable return. It might be possible, by reduction of credits for years in which no contributions were made or by other penalties, to encourage continuous contributions once the individual had elected coverage voluntarily. But there is no way to guarantee that persons of low income will "join" a voluntary plan. These individuals may feel that the prospective return does not justify the immediate cost, or they may be so hard pressed to meet current expenses that they will decide that they cannot spare the necessary contributions. Thus a voluntary program would favor a relatively small group, composed mainly of the most expensive risks, and would result in a substantial net drain on the fund. The cost would have to be made up from contributions of compulsorily covered individuals or from general revenues.

Farm and household labor.—Coverage of farm workers and household workers can be considered together because the two groups present the same basic problem of administration. Both farm and household employees were excluded from coverage by the 1935 act because it was thought that most small farmers and housewives could not be expected to keep adequate records and make sufficiently reliable reports to permit coverage of their employees at that time. Much farm and domestic employment is seasonal and intermittent in character. A large labor turn-over has been characteristic of both types of employment. For both groups of workers a substantial portion of wages consists of wages in kind, such as food and lodging. Low income and consequent lack of opportunity to achieve security for themselves, together with lack of protection through other forms of social legislation, make it desirable that both groups be included in the old-age and survivors insurance program.

The original exclusion of farm labor under the Social Security Act affected some 4½ million hired farm workers. The definition of "agricultural labor" contained in the 1939 amendments had the effect of excluding, in addition, some 700,000 quasi-industrial workers in cotton ginning, irrigation projects, nurseries and greenhouses, fur farms, hatcheries, and nonagricultural work on farms. Agricultural labor was thus one of the largest of the excluded groups. In recent years, however, there has been a drop in the number of hired farm workers. According to a recent report of the Bureau of Agricultural Economics, approximately 3½ million persons were so employed at some time during 1946. This figure does not include farm owners, tenants, or share croppers, or workers in the quasi-industrial employments on the border line of farm employment, unless they were also engaged in farm work for wages at some time during the year.

According to this report, average cash wage income of farm workers in 1946 was $521, of which $391 came from farm work and $130 from nonfarm work. The extent of the shift into nonfarm work is further revealed by data showing that about 20 percent of the working time of the group, on the average, was spent at nonfarm work and that about 26 percent of all farm wage workers in 1946 had some earnings in nonfarm work.

Since much of their nonfarm work is in employment covered by old-age and survivors insurance, farm workers have become acquainted with the protection afforded by the insurance program and are aware that they will lose it when they return to the farm. Some farmers and operators of quasi-industrial plants have become interested in coverage for their workers. This interest is due partly to the difficulty of obtaining employees, a difficulty arising from the fact that potential employees are unwilling to jeopardize their social insurance rights by shifting from covered to agricultural employment. Old-age and survivors insurance for farm workers would make it easier for employers to attract farm laborers and would contribute toward greater stability of the farm labor force.

Coverage of farm people should operate to reduce the burden on the public assistance programs, especially in the predominantly rural States. With a substantial increase in the number of persons eligible for old-age and survivors insurance benefits, many persons who would otherwise be dependent on the assistance program would be provided for by the insurance program. This would enable the States to use more effectively the funds available for the assistance programs.

Almost 1.9 million persons were engaged in domestic service as of May 1947, according to a sample survey of the Bureau of the Census. This figure represents an increase of 350,000 persons since May 1946 and indicates that household employment is regaining some of its wartime losses. The increase in numbers may continue until the total is about the prewar monthly level of 2½ million household workers. The monthly level of domestic employment is significantly lower than the number of persons engaged in domestic service at some time during the year. For example, in May 1946 the monthly level was less than 1.6 million, but an estimated 2.7 million persons were in domestic service at some time during 1946. This comparison reflects the high volume of labor turn-over in this noncovered field of employment.

Along with agricultural employment, household employment occupies the lower rungs of the economic ladder. According to estimates of the Bureau of the Census, 73 percent of the household workers in 1945 had annual cash earnings of less than $500, and 21 percent had earnings from $500 to $999. To these earnings, of course, must be added the value of payments in kind, such as food, shelter, and carfare. Total earnings in 1945, though meager, were high in relation to 1940 earnings and showed the residual effect of the wartime demand for and supply of household labor. As the general employment situation adjusts further to peacetime conditions, the present level of earnings in household employment may decline.

Their relatively low earnings and the amount of part-time employment make domestic workers as a group less able than most other workers to protect themselves and their dependents against loss of income in old age or at death. Coverage under old-age and survivors insurance would help them to provide against these hazards and would eliminate one disadvantage they suffer as compared with other members of the labor force.

Workable solutions have been developed for the administrative problems of covering agricultural and household workers. It is anticipated that many employers of both groups will be able to use the quarterly reporting method now used by employers in commerce and industry. Enterprises that are defined as "agricultural" by the act but that operate under industrial and commercial conditions and large-scale farms employing clerical help would find the present system most convenient. So, too, would individuals and college fraternities and sororities that employ several household workers.

To accommodate the needs of small employers, a stamp plan, such as has been tested thoroughly in foreign countries, could be used. Under such a plan the employer, when paying wages, would paste in the employee's stamp book social security stamps representing to the nearest dollar the amount of wages paid. Stamps might be purchased by the employer at local post offices or from rural mail carriers. The use of stamps in 11 wage denominations—$1, $2, $5, $10, $20, $25, $30, $40, $50, $75, and $100—would permit recording each wage payment with a minimum number of stamps. The cost of the stamp would also appear on each stamp, thus indicating the amount of the employer and employee contribution. The employer would deduct one-half the cost of the stamps from the worker's earnings. Just as under the pay-roll plan, the problem of evaluating noncash wages, such as meals and lodging, would be met by use of a schedule of minimum values. Periodically, the employee would forward his stamp book to the Social Security Administration, which would send him a new one and post to his wage record the wages he had earned.

Employment by nonprofit organizations.—Interest in the extension of coverage to the approximately 1 million employees of religious, charitable, scientific, literary, educational, and other types of nonprofit organizations has been widening, as indicated by the introduction of various bills in Congress during the past year with a view to removing the basis of their exclusion. In large measure these legislative proposals reflect the changed attitude of the organizations themselves toward the desirability of having old-age and survivors insurance protection extended to their employees.

Originally some nonprofit organizations opposed coverage under the Social Security Act because of their fear that the levy of an employer's tax might tend to weaken the traditional tax-exempt status of the group. Also, when the program was originally adopted, religious groups were opposed to any appearance of governmental control that might be interpreted as a departure from the principle of separation of church and state. Today this opposition has largely disappeared, and there are few who question that workers employed in this field, and their families as well, should have old-age and survivors insurance protection. Although these humanitarian organizations have made valuable pioneer experiments in retirement plans, the extent of protection afforded by these plans has been limited. Moreover, even the individuals who enjoy such protection may lose it on transferring from one nonprofit organization to another or to a different type of organization.

The Social Security Administration recommends that coverage under old-age and survivors insurance be extended to employment for nonprofit organizations. Adjustments could then be made in the existing special retirement systems so that they would supplement the protection afforded under the Federal program. In extending coverage, attention should be given to special characteristics of the group. If, for example, clergymen and members of religious orders do not wish social insurance protection, their present exclusion might be continued. In addition, provision might be made for payment of all contributions directly into the old-age and survivors insurance trust fund, and the legislation might include a statement of congressional policy that coverage of this employment is not to be construed as affecting the traditional tax-exempt status of nonprofit organizations.

Federal civilian employment.—About 3.7 million individuals worked for the Federal Government in civilian jobs in 1946. About three-fourths were in jobs covered by the civil-service retirement system. Another 1 or 2 percent were covered by other Federal retirement systems. It would seem clearly desirable to extend old-age and survivors insurance coverage to the Federal employees who are not protected by any one of these retirement systems. That group includes some employees of Federal instrumentalities and temporary, part-time, and piecework employees of the Federal Government.

The basic protection of old-age and survivors insurance would also be valuable to Federal employees who are already covered under a special Federal retirement program. Although the civil-service retirement system provides much higher retirement benefits than old-age and survivors insurance, the retirement protection of individuals who shift between employment covered by old-age and survivors insurance and that covered by the civil-service retirement system is uncertain. Monthly survivor benefits are not paid under the civil-service retirement system except when a retired employee had elected a reduced annuity during his lifetime. While legislation providing a certain degree of survivorship protection under that system has been under consideration, it is not yet clear whether career employees will have adequate survivorship protection even if such legislation is adopted. In any event, provision for survivors of other Government employees will continue to be uncertain, as is their retirement protection.

If old-age and survivors insurance were extended to Federal employees, the benefits of the civil-service retirement system and of other Federal retirement systems could supplement the basic protection provided under old-age and survivors insurance. Such modifications as were thought desirable could be made in these systems to take into account the benefits under the basic system. The combined protection that employees would have under the two programs should, in all cases, be as great as or greater than that under the civil-service retirement system alone. Employees shifting between Federal employment and jobs in business and industry would have continuity of coverage, while career employees of the Federal Government would gain the valuable survivorship protection provided under old-age and survivors insurance. The rights of annuitants and employees under the civil-service retirement system would of course be preserved, and the separate administration and financing of that system would be retained.

State and local government employment.—In recent years there has been a growing sentiment in favor of old-age and survivors insurance coverage for State and local governmental employees, who numbered about 4.3 million in 1946. Professional organizations such as the American Municipal Association and the International City Managers' Association have indicated that they believe governmental units wishing Federal old-age and survivors insurance coverage for their employees should have the privilege of electing such coverage. In 1947, legislative bodies of two States and the Territories of Alaska and Hawaii sent resolutions or memorials to Congress asking that coverage be extended to all employees of State and local governments. Five other States had already petitioned Congress for such extension, while three additional States have asked Congress to extend coverage to all employed persons. North Dakota and Iowa have established for their employees retirement and survivor plans that are closely modeled after the old-age and survivors insurance system. Finally, four States have anticipated Federal action by adopting laws authorizing acceptance of coverage for their workers under an expanded Federal program.

Almost half of the workers employed during 1946 by States, counties, cities, villages, and other units of local government have no established system to provide them with retirement benefits in their old age; only a small fraction has coverage under systems providing adequate death-benefit protection for their families. Even those who contribute to a retirement plan find themselves at a disadvantage when they leave the system, since they usually forfeit their benefit rights. If coverage under the Federal program were extended to State and local employment, public employees who change jobs would have continuous protection at least equal to that provided for persons who spend their entire working life in private employment. In addition, such an extension of coverage would more fully protect workers with old-age and survivors insurance credits who enter public employment and would involve no loss of protection for persons covered under existing retirement systems.

The Social Security Administration has suggested that coverage be extended to employees of State and local governments by means of voluntary agreements negotiated between the States and the Federal Security Administrator. In general, it is undesirable to permit voluntary coverage of individuals, or of special limited groups, under a compulsory system of social insurance. The danger of adverse selection and other drains on the trust fund would be lessened, however, if the elections of coverage were made by employing units rather than by individuals. Moreover, because of the constitutional barrier to compulsory coverage of most State and local governmental employees, voluntary coverage in this area must be permitted if the employees involved are not to be completely deprived of the advantages of coverage under the Federal system.

Under these suggested agreements the governmental units would voluntarily assume the status of employers under old-age and survivors insurance. To avoid the danger of adverse selection of risks, all employees of the cooperating governmental units would be covered, except that certain classes of employees—elected officials, employees compensated on a fee basis, and, if desired, members of formal retirement systems actually in operation—might be excluded at the option of the employing unit. Since the agreements would be voluntary, the question of the Federal Government's right to levy a tax on States and localities would not be raised.

As a supplement to a voluntary plan for State and local governmental employees generally, compulsory coverage might be extended to employees performing service in connection with specified "proprietary" functions of State and local governments, such as State liquor stores, municipal transit systems, and other public utilities that are governmentally owned and operated. Such employees apparently can be covered without constitutional difficulties on the same basis as industrial employees, and they should be so covered.

Whatever method is adopted to bring the employees of States and localities under the Federal program, it should be designed to cover the largest possible number. Only by making the Federal system the basic system for all types of employment can the full advantages of social insurance be realized. Extending old-age and survivors insurance to State and local employees need not and should not in any way jeopardize their rights in existing retirement plans. After old-age and survivors insurance was established, the retirement plans in private industry were encouraged and made stronger financially. There is every reason to believe that, if firemen, teachers, policemen, and other groups having special systems were brought under old-age and survivors insurance, their existing protection would also be preserved and even increased, and at the same time protection could be afforded to the large numbers of State and local governmental workers not now covered under any plan.

Military service.—About 1.4 million persons are now serving in the armed forces of the United States and are therefore not covered by old-age and survivors insurance. When the program was adopted, coverage was not extended to the armed services because it appeared that service retirement systems afforded ample protection to persons in the armed forces of the United States. It is true that the man who makes a career of his military or naval service has retirement protection under those systems, and that the survivors of men who die in service are eligible for pensions or compensation under laws administered by the Veterans Administration. Some persons who shift between military service and employment in private industry, however, fail to acquire rights under any program.

This problem was intensified during the war, when the armed forces of the United States grew from about 320,000 men in 1939 to about 12 million. The wartime problem was particularly acute since most of these servicemen and women had formerly been in civilian employment and could be expected to return to such employment after the war.

While the problem of continuity of protection will not be so great in peacetime, it will nevertheless be substantial in view of the increase in the peacetime armed forces from their prewar size. Extension of old-age and survivors insurance coverage to military service on a permanent basis would solve this problem, providing benefits for persons who shift between military service and private employment as well as increased protection for career servicemen. Also, such an extension of coverage would be a step in the direction of a coordinated Federal benefit system, since it would close existing gaps in protection and perhaps hasten the elimination of overlapping benefits.

Former proposals for temporary measures for the protection of wartime servicemen suggested that the Government pay the full cost of the measure, as was done under the provision of the 1946 amendments for the protection of survivors of wartime veterans. However, if the services are to be covered permanently, it seems important that the servicemen themselves should bear their share of the cost. This would be in keeping with the contributory nature of the program and would give servicemen the same interest and stake in the system that other covered workers have.

The temporary measures proposed during the war generally suggested a flat wage credit of $160 a month. This was the figure used in the provisions for crediting wartime military service under the Railroad Retirement Act and in the veterans' provision of the Social Security Act amendments. The provision seems satisfactory during a war, when the service departments are under considerable pressure, the Government pays the entire contribution, and the period of time is so short that the end result, in benefit amount, does not differ much whatever figure is used. For a permanent measure, however, it seems desirable to credit the actual value of the compensation, allowances, and perquisites of the individual serviceman.

Railroad employment.—Nearly 3 million persons who were employed by railroads and other employers subject to the Railroad Retirement Act received wage credits under that act during 1946. The provision for monthly survivor benefits under the 1946 amendments to that act substantially broadened the special protection for railroad workers. Those amendments also made service in the railroad industry creditable toward survivor benefits under the Social Security Act and provided for correlation of such benefits under the two systems.

No coordination was established for retirement benefits. As a result, workers who shift between railroad employment and employment covered by the Social Security Act may not have adequate retirement protection.

The most desirable method of eliminating this gap would be to extend old-age and survivors insurance coverage to railroad employees. Coverage of railroad employment under the basic old-age and survivors insurance program would prevent any loss of retirement benefits by persons who have worked in both types of employment. If coverage were so extended, the railroad retirement system might be revised so as to provide supplementary benefits for railroad workers, as was done successfully with private pension plans after the Social Security Act was passed.

Problems of piecemeal extension.—Each of the excluded groups should be brought into the old-age and survivors insurance program, but inclusion of certain groups in advance of a general extension of coverage involves special problems. The present eligibility requirements and the provisions for computing benefit amounts are such that periods of time spent outside covered employment operate to reduce the likelihood that a worker or his survivors will qualify for benefits and to reduce the amount payable in the event that they do qualify. It would obviously be unfair to extend coverage to any group of wage earners not now covered without modifying in some way these eligibility and benefit-computation provisions.

If coverage were to be extended simultaneously to all or most of the excluded employments, it would be comparatively simple to work out generally applicable provisions that would prevent newly covered workers from being unduly handicapped by reason of prior periods of noncoverage, and that would operate equitably and without undue administrative difficulty or danger to the trust fund. If, however, coverage is extended to a limited group only, one of two alternatives—neither very satisfactory—would have to be adopted. It would be necessary either to modify the requirements only for the members of the particular group, with an accompanying test of reasonable attachment to the group, or to relax the requirements for all workers. The first alternative would involve administrative difficulties and would inevitably result in some inequities. Under the second alternative, relaxation of requirements would enable workers in the remaining noncovered groups to acquire substantial insurance protection by short periods of covered employment. After such periods they might return to their normal pursuits in noncovered employment, in which they would not be subject to social security taxes; many would draw social security benefits while regularly so employed. The result would be unjustifiable drains on the trust fund.

Benefit Changes and Other Proposed Modifications

Experience in administering old-age and survivors insurance has revealed the need for a number of changes in the present program other than those designed to extend its scope and coverage. Some of the deficiencies arise from the generally low level of the benefits, which are inadequate in terms of both percentage of wage replacement and purchasing power. Others represent anomalous or inequitable situations not anticipated when the 1939 amendments were adopted and not corrected in the 1946 amendments. These anomalies can be remedied only by further amendment of the law.

Benefit formula and wage base.—Under present provisions the primary insurance benefit, on which all subsidiary and survivor insurance benefits are also based, is computed as 40 percent of the first $50 of the average monthly wage plus 10 percent of the next $200, plus 1 percent of this sum for each calendar year in which the individual was paid wages of $200 or more. With a maximum possible increment of 11 percent through 1947, this formula permits the primary insurance benefit to replace about 45 percent of an average monthly wage of $50, but only 22 percent of $150, and less than 18 percent of a $250 average.

With the rise in wages during and since the war, the ceiling of $250 on the average monthly wage has become increasingly restrictive.

Benefits are based on only part of the worker's wages in a larger proportion of cases now than in 1939, when the formula was adopted. In 1945, the last year for which such data are available, more than 13 percent of all workers in covered employment had wages of $3,000 or more. In 1940, only 3.3 percent had wages of that amount. This shrinkage in protection would be eliminated if the wage base for contributions and computation of benefits were increased materially. If the wage base had been $4,800, about 97 percent of the workers would have had all their wages credited in 1945. In addition, the concentration of the extra weight in the formula on only the first $50 of the average monthly wage makes the formula inadequate, even as compared with what was intended when it was adopted in 1939.

The Social Security Administration recommends that the relationship between benefits and the general level of wages be adjusted so that the benefit for regular workers would provide a reasonable replacement of wages lost by death or retirement. The benefit formula should be revised to provide a replacement of wages, in terms of present levels, at least as large as was provided in 1939 by the present formula. To give a heavier weighting to a larger segment than the first $50 of the average monthly wage would increase benefit amounts for all claimants, within maximum limitations, but would have its greatest effect for persons with low earnings.

Maximum family benefits.—The maximum monthly amount of benefits payable to a family on the basis of one wage record is now limited to the least of three amounts: $85, twice the primary benefit, or 80 percent of the average monthly wage. The first two restrictions tend to limit unduly the benefits payable when the deceased wage earner leaves a widow and several children. The suggested increase in the taxable wage base and the liberalization in the benefit formula would make it especially important to increase the maximum amount payable to some beneficiary families. We recommend that the limitation to twice the primary benefit be removed, that the dollar maximum on monthly family benefits be raised to $120, and that, up to that amount, benefits be limited to 80 percent of the average monthly wage. Under these restrictions, large families with average monthly wage levels of less than $150 would receive 80 percent of the average monthly wage to replace the earnings on which they had relied before the death of the wage earner. If the average wage was $150 or more, the maximum benefit would be $120.

Suspension of benefits for employment.—An individual's benefits are suspended for any month in which he earns more than $14.99 in covered employment. If a primary beneficiary earns more than that amount, all benefits payable on the basis of his wage record are suspended. When the "work clause" provision was put into the law in 1939, $15 in monthly earnings was considered by Congress as a reasonable border line between casual, odd-job work, such as could be expected of a retired individual who wished to supplement his benefit, and regular attachment to the labor market. The increase in wage levels since that time has made $15 almost meaningless as a measure of attachment to the labor market. It has been difficult for the large numbers of beneficiaries whose income consists of only their benefits and the permitted supplemental amount of earnings to adjust their scale of living to that level. The amount of supplementary earnings permitted may well be increased to $40 a month. Beginning at age 70, benefits would become payable irrespective of whether or not the individual is employed.

Age of eligibility for women.—Data concerning married men on the retirement rolls indicate that the wife is usually younger than her husband; when the husband is 65 the average age difference is nearly 5 years. Since under present provisions a wife must be at least 65 years old to be eligible for a wife's benefit, only about one-fifth of the wives of insured men are immediately eligible for benefits when their husbands retire at age 65. If the age of eligibility for wives were reduced to age 60, three-fifths of the wives would be immediately eligible when their husbands retired. Women who formerly have not worked outside their own homes and who are widowed at or about age 60 are severely handicapped in finding work to support themselves until age 65. In some firms, women must be retired at age 60, and once out of a job at that age a woman has difficulty in obtaining new employment. For all these reasons, we recommend that women be eligible for all types of benefits at age 60.

Legal status of wife and widow.—Cases have occurred in which a claim for wife's or widow's benefits has had to be denied because of some legal technicality that invalidated the marriage even though the impediment to a valid marriage was later removed. Ordinarily, in such cases, the couple has for years been accepted by the community as husband and wife. To validate such a marriage, some States require a ceremonial marriage after the removal of an impediment. In some cases the couple has failed to have the ceremony performed through a mistaken belief that the marriage was validated by their living together after the impediment was removed. The wife may not even have known of the irregularity in the marriage until her claim for benefits was filed and rejected. The need for benefits is as great in these cases as when the marriage is technically valid, since the woman is as likely to be dependent upon her presumed husband as if he had been her husband legally.

We recommend that the definitions of "wife" and "widow" be revised to permit payments to a woman when the couple has lived in an acknowledged husband-wife relationship for at least 36 months, provided there is no legal impediment to a ceremonial marriage in the State of the wife's residence at the time she applies for benefits or at the husband's death.

Mother's insurance benefits.—When the Social Security Act was amended in 1939 to include payments to dependents and survivors of deceased wage earners, the term "widow's current benefits" was adopted to designate benefits paid to a young widow with a child or children in her care who were eligible for survivor benefits. The Social Security Administration believes that the designation of such benefits should be changed to "mother's benefits," to emphasize the fact that the benefits are being paid because the women are mothers of young children. The change in terminology would also do away with the present confusion between "widow's current benefits" and "widow's benefits," payable to widows at age 65.

One of the present gaps in the protection of the family of a deceased wage earner is the fact that benefits are not paid to the divorced wife of a deceased wage earner even though he had furnished her support and she is caring for their children, who are receiving benefits. Children's benefits are so small in themselves that unless a benefit is paid to the mother she may be unable to remain at home to care for the children, as the act intended in providing benefits for young widows. It is therefore recommended that survivor benefits be paid to the divorced wife of a wage earner if she has the care of their child who is entitled to benefits on the wage earner's record and if he had been contributing to her support as well as to the support of the child.

Child's benefits.—In many cases, children live with and are supported by persons other than parents or stepparents. Often a stable relationship exists between the child and a near relative who fails to take the formal steps for adoption. For example, it often does not occur to grandparents to adopt a grandchild who is left in their care upon the death of one or both of the parents. In such cases it is desirable that the child receive benefits when the grandparent's wages cease on death or retirement. A requirement that the child must have been both living with and supported by the wage earner for at least 36 months in the case of a retired worker, or for at least 12 months before the worker's death—the same requirement as that applied to adopted children—would be sufficient protection of the trust fund against claims based on temporary relationships entered into solely for the purpose of receiving benefits.

When a marriage is invalid, regardless of the good faith of one or both parties, a child of such marriage may not be able to qualify for monthly benefits as the legitimate child of the deceased wage earner, even though there is no question as to the child's need for continuous support. We recommend that provision be made for these children through payment of benefits, after the insured father's death or retirement, to any child who had been living with and regularly supported by him, and that the payment should be made without regard to the child's legal status.

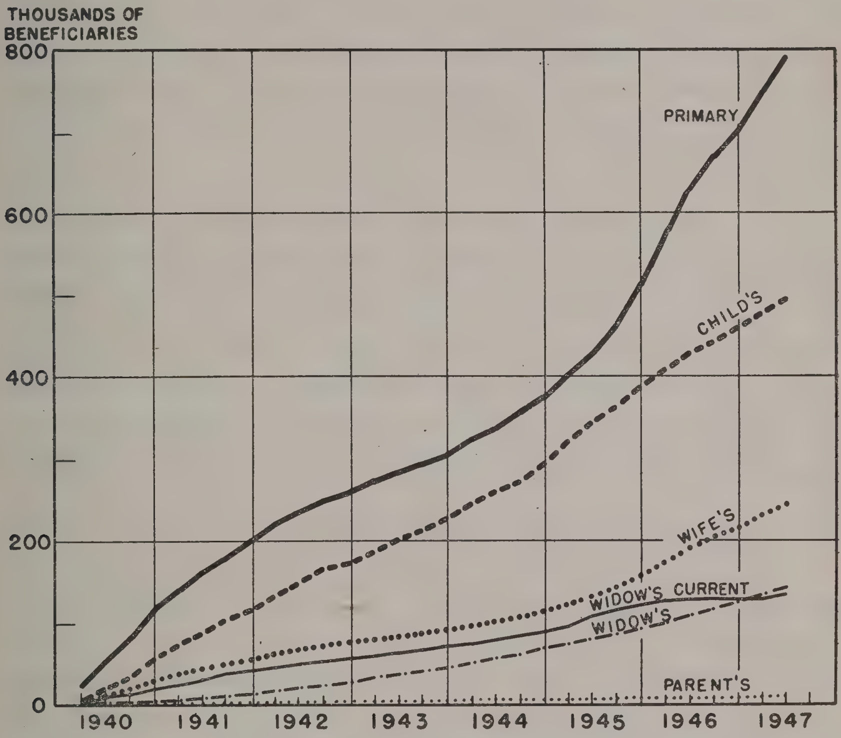


CHART 8.—*Number of persons receiving monthly benefits under old-age and survivors insurance, by type of benefit, January 1940–June 1947*

A child should also be made eligible for benefits on the basis of his mother's or stepmother's wage record, even though the father is living with the family, if the wife was the family breadwinner because of a long-term disability of the father. The father's disability for 6 months or more would be sufficient indication that child's benefits were needed to replace the wage-earning mother's wages when she died.

Lump-sum payments.—A lump-sum death payment is now made only when the worker is not survived by a widow, child, or parent eligible for monthly benefits for the month in which the worker died. We believe that the lump-sum death payment is needed as much when there are survivors eligible for monthly benefits as when there are no such survivors, since monthly benefits are not designed to meet the extra expenses arising at death. The present provision permits situations in which the aggregate monthly benefits payable are less than the lump sum that would otherwise have been paid. If, for example, the youngest child in a survivor family will attain age 18 in the month after that in which the wage earner died, no lump-sum payment can be made and only one monthly benefit can be paid. If the child is working, neither the lump sum nor the monthly benefit can be paid. On the other hand, when a widow is 65 years old in the month her husband dies she receives only a monthly benefit, but if she reaches age 65 in the month after her husband's death she receives the lump sum and her monthly benefits begin with the following month. The best way to eliminate such anomalies and inequities would be to make the lump-sum payment in all cases.

Definition of wages.—In two particulars the present definition of "wages" works a hardship on covered workers. Failure to include as wages all tips and gratuities results in low benefits or loss of benefits for many workers in industries covered by the act. The exclusion from the definition of "wages" of any dismissal wages which an employer is not legally required to pay has resulted in a loss of possible wage credits toward benefits, without an offsetting gain to employees through expansion of the practice of making such payments. It is recommended that dismissal payments, whether or not the employer is required to make them, and tips be counted as wages.

Further Modifications Under Extended Coverage

If coverage is extended to occupations heretofore excluded, it will be necessary to make some changes in the eligibility requirements and the method of computing the average monthly wage. Otherwise workers nearing retirement age at the time of extension might have no reasonable chance of becoming insured although they might have paid contributions for several years. An individual is eligible for old-age benefits if he has half as many quarters of coverage (calendar quarters in which the worker is paid wages of at least $50 in employment covered by the act) as the number of calendar quarters elapsed after 1936 and before the quarter in which he attains age 65, or 40 quarters of coverage, if that is less. No worker can be insured with less than 6 quarters of coverage. Those who have no quarters of coverage at the time their occupation is brought under the act and who are approaching age 65 would find it difficult to meet the eligibility requirements. Even if these older workers should become eligible for benefits, the amount of their benefits would be extremely low, because of the formula in the present act for determining the average monthly wage, on which the benefit amount is based. That formula requires, in general, that the worker's total taxable wages be divided by the total number of months that have elapsed from January 1, 1937, up to the quarter in which he files his claim for benefits or dies. With a divisor that includes all months in the years in which no such taxable wages were paid, the benefit amounts of newly covered older workers would be reduced to the minimum or near minimum in many cases.

It is impractical to attempt to identify workers according to occupations and to make provisions affecting only those who had worked in noncovered employment. It is also impossible to differentiate persons who worked regularly in noncovered employment from those who were not in the labor force. Therefore any modifications made in the interest of the newly covered workers must apply to all workers, including those whose major occupations have been covered since 1936.

Eligibility requirements.—If the eligibility requirement is to function as a screening device to sift out persons not dependent on their wages from those who are thus dependent, it must not be made too liberal. Moreover, the worker who has paid contributions since 1936 should receive a larger benefit than the worker at the same wage level who has paid contributions for only a brief period.

One method of modifying the eligibility requirement would be to use, as an alternative to the present requirement, a test of substantial recent covered employment. Twenty quarters of coverage out of the last 40 quarters, including the quarter of entitlement or death, would be a requirement that a large part of the newly covered workers could meet. A regularly employed worker who was 60 years old at the effective date of coverage extension could be eligible for retirement benefits at age 65. The low amount of qualifying wages in a quarter allows for some irregularity of employment within the 20 quarters. Workers whose occupations had been covered since the beginning would continue to qualify under the present requirement if that was more favorable to them. A small number of persons who had not previously been employed, chiefly women, might of course qualify for benefits by entering the labor force 5 years before their retirement age. When a woman goes to work for the first time at an advanced age, however, the assumption can be made that self-support is necessary; and it is socially desirable to protect such persons against loss of wages upon retirement.

During the war years, many workers in noncovered occupations, such as farming and domestic service, were drawn to covered work in factories and shops where war materials were made. Many of these workers have returned to their former occupations. In the case of the older workers the quarters of coverage thus earned will be of special importance, since they will count toward the 20 quarters of coverage needed in the last 10 years before retirement. They will, therefore, considerably reduce the time it will take such workers to become fully insured after their present occupations are covered.

When coverage is extended, certain occupations will be included in which earnings are usually reported or wages paid at one season of the year. Under the present definition of insured status, workers in these occupations would be handicapped in obtaining enough quarters of coverage to become insured. This handicap could be eliminated if such annual wages were credited to quarters of coverage by the use of some conversion table, such as: wages of $50–199 equal 1 quarter of coverage; $200–399, 2 quarters; $400–599, 3 quarters; and $600 or more, 4 quarters.

Average monthly wage.—Under the present law, benefits are based on total wages averaged over all months since 1936, including months of little or even no earnings. Lack of wages in insured employment in any period reduces the average excessively when the period of coverage is short. For example, if a worker reached age 65 and filed for benefits when the program had been in effect for 10 years, and if he had worked 5 years in excluded employment and 5 years in covered jobs, his average monthly wage for computing benefits would be only one-half his actual earnings from covered employment. Assuming that he earned $200 a month for the 5 years in a covered job, his average monthly wage for benefit computation would be $100. To correct this situation, the average wage could be determined by relating it only to periods in which the worker's earnings exceeded a certain amount. This could be accomplished by including only the periods in which the worker earned quarters or years of insurance coverage. Instead of dividing total wages by 3 times the total number of quarters elapsing since 1936, they might be divided by 3 times the number of quarters of coverage or by 12 times the number of years of coverage. A year of coverage could be defined as one in which wages of $200 were paid. To relate the amount of the benefit to the length of time a person made contributions, the benefits might continue to be increased by 1 percent for each year of coverage, as is now the case, and reduced by 2 percent for each year the worker was out of covered employment.

Minimum benefit.—At present a retired worker who qualifies for benefits receives not less than $10 a month. Under limited coverage, and at the price and wage levels of 1939 when this provision was adopted, $10 seemed a reasonable minimum in view of the fact that some persons may qualify for benefits after a relatively short period in covered employment and they may have other retirement benefits from their noncovered work. If nearly all gainfully employed persons were brought into the program, persons usually employed outside covered industries would have very little opportunity to gain unduly by short-term employment. In such circumstances, for those regularly covered whose wages were so low that their benefits were at the minimum, a higher minimum benefit would be desirable. The Social Security Administration suggests $20.

Cash Benefits for Extended Disability

As early as 1938 the Advisory Council on Social Security, appointed jointly by a subcommittee of the Senate Finance Committee and the Social Security Board, agreed unanimously on the social desirability of providing insurance benefits for persons who are permanently and totally disabled as well as for their dependents. From 1940 on, the Social Security Administration has consistently recommended establishment of such benefits to afford protection against the risk of prolonged total disability.

Many organizations have endorsed a Federal program of disability insurance. These include the National Planning Association, which represents agriculture, business, and labor; major labor groups, particularly the American Federation of Labor and the Congress of Industrial Organizations; the National Farm Labor Union; the National Farmers Union; the Ohio State Grange; the American Public Welfare Association; the Fraternal Order of Eagles; the Council for Social Action of the Congregational Christian Churches; the National Conference of Catholic Charities; the National Council of Jewish Women; and the American Foundation for the Blind. The American Medical Association has also endorsed the principle of insurance against loss of wages due to disability. The United States Chamber of Commerce favors a system of benefits, consistent with old-age and survivors insurance benefits, for permanently and totally disabled workers who are forced to retire because of disability at or after age 55.

Public support has been given to proposals for a disability insurance program because it is obvious that the individual burden on the worker and his family is overwhelming. When a worker becomes disabled, the costs for his family often are greater than the costs associated with old age or death. In addition to cutting off the worker's income, disability saddles the family with the costs of his care, which may include expenses for diagnosis, treatment, drugs, hospitalization, services of attendants, and prosthetic devices. Illness resulting in physical or mental incapacity for work can strike at any age and without warning. Many workers are disabled early in their careers; their problem is especially difficult because they have had little chance to acquire substantial savings and because they may have young children. In many cases a young mother is forced to go to work in order to support her husband and children; sometimes a working member of the family must give up a job in order to care for the sick person. In almost every case, family savings are soon gone and, if recovery of the worker is long delayed, the members may become public charges. Even the benefits that might eventually be paid under old-age and survivors insurance will decrease and, in many cases, eligibility for benefits will be lost because the worker is unable to return to covered employment. For all these reasons, prolonged disability constitutes a major cause of poverty and individual distress.

The size of the disability problem can best be visualized when it is realized that at any one time about 1.6 million persons aged 14–64 are kept out of the labor force by a disability that has lasted 6 months or more. Approximately a million persons in this group are suffering from disabilities that have lasted longer than a year. Disability hits persons at all economic levels, but it is more prevalent in lower-wage families, because low income usually means inadequate food and housing, lack of prompt and proper medical care, and, in many cases, arduous and exhausting work. These conditions foster ill health, which further reduces income. Need and dependency increase the hazard of illness among all members of the family, thus aggravating insecurity. The extent of this threat is widespread. About 3 out of 4 families rely almost exclusively on current earnings. When extended disability strikes, the earnings loss that occurs is usually not compensated from any source. Ultimately the family must adopt a greatly lowered standard of living and often become permanently dependent on relief.

The average working man can do very little to protect himself against the blow of a disabling disease or injury. The extent of present public provision against the risks of disability has been discussed in the first chapter of this report. For the working population, the only disability protection generally available is that against work-connected injuries or diseases as provided by the various workmen's compensation laws. Only about 5 percent of all cases of total disability arise from work-connected accidents or occupational disease, however, and not all of these are compensable.

The magnitude of the human and economic costs of disability demands some planned solution that will be within the means of all, or a reasonable proportion of all, workers. Extended disability is an important cause of hardship because its losses and costs fall unevenly and unpredictably on individuals and families. Very few workers can budget in advance to meet the double threat of complete loss of income and heavy medical expenses. Yet the costs of total disability are predictable in the aggregate and can be met by social insurance.

It is well to remember that the insurance contributions that would be levied in connection with a disability insurance program would not constitute a wholly new cost. The burden of disability is now largely financed through relief and institutional care. A substantial portion of the continuing burden of public aid, amounting to over a billion dollars a year, arises from the illness or prolonged disability of the breadwinner. Disability insurance represents an orderly method of sharing a widespread risk so that partial compensation for loss of wages may be provided without loss of self-respect and without undue hardship.

The most effective and appropriate system of cash insurance benefits for extended total disability would provide for the interlocking of the administration of old-age, survivor, and disability insurance benefits. Aside from the logic of grouping under one general system the administration of provisions against all major risks of complete and final wage loss, this combination would result in decided operating advantages. The organization that exists for the development, adjudication, and payment of old-age and survivors insurance claims could be adapted with a minimum of effort to the added tasks of paying disability insurance claims. Through amendment of the old-age and survivors insurance program, provision could be made to "freeze" the insured status and the average monthly wage of a worker who is insured for old-age benefits at the time of his disablement so that he will be eligible for old-age insurance payments if he lives to normal retirement age. Likewise, survivor benefits could be assured to his dependents upon his death.

Under the recommended program, the monthly insurance payments to totally disabled workers and their dependents would be similar in type and amount to those payable when aged workers retire. The new insurance protection should be available to all workers who are dependent on income received from covered employment. To qualify for benefits, the disabled worker should be required to have had both substantial and recent wages in such employment. Calculation of the benefits should be based on the wage record and benefit formula applicable to old-age and survivors insurance; similar qualifications for dependents' benefits should probably be applied, and similar conditions for terminating benefits would be desirable.

Although the protracted illness or disability that the program should cover is usually termed "permanent," the concept of lifetime disability, requiring a medical prognosis of permanency, is both socially and administratively unsatisfactory. Instead, benefits should be paid to compensate for loss of earnings after a suitable waiting period—for example, 6 consecutive calendar months of total disability—and should be paid for the duration of total incapacity for substantially gainful work. The program should not provide compensation for the mere fact of physical disability or for incapacity to pursue a customary occupation. The test of what constitutes total incapacity for work in general could be established either by law or regulation. Most appropriate of a number of alternatives probably would be the establishment of a flat residual earning capacity as the test of disability—that is, whether the worker has become incapable of earning more than a small, flat amount (perhaps $30 a month) at any work he might reasonably be expected to do.

Like old-age and survivors insurance benefits, disability payments should be withheld for any month in which a beneficiary earns more than a specified amount. Since the opportunity to earn wages in any part-time or occasional work is of psychological as well as monetary benefit to the disabled person, temporary employment should result in suspension of payments rather than in automatic termination of entitlement. However, benefits should be terminated in the event of recovery. Provisions for periodic reexamination would be necessary to assure that cases of recovery are promptly discovered, and refusal to submit to reexamination should be sufficient grounds for withholding benefits.

Under a comprehensive and adequate system of social insurance, it is uneconomical and socially wasteful to pay duplicate benefits to a wage earner for the same earnings loss. In designing the disability program, therefore, consideration should be given to the problem of avoiding multiple benefits when disability protection is also afforded by State or Federal workmen's compensation laws, or in the form of noncontributory benefits, such as those administered by the Veterans Administration.

A major factor for ensuring the social effectiveness of the program would be the authorization of expenditures from the trust fund for vocational rehabilitation. To equip the disabled person to return to gainful employment whenever possible is highly desirable both for the individual and for society. Rehabilitation measures would also result in savings to the trust fund through the reduction in ultimate benefit outlay.

In recent discussions of the need for disability protection, it has been proposed that benefits be limited to cases of permanent or extended disability after age 55. Proponents of such a plan believe that it would minimize both the administrative problems and the cost of adding disability protection to the old-age and survivors insurance system.

It is clear, however, that the provision of disability benefits only for persons who are well advanced in years and approaching retirement age would meet only part of the real need of the working population for insurance protection against total wage loss due to extended disability. More than half the cases of protracted disability may be expected to commence at ages under 55. Younger disabled workers would be left without insurance benefits over the years when the consequences of disability are frequently most disastrous—the years in which they are most likely to have dependent children and larger financial responsibilities. Moreover, limitation of disability benefits to older workers would further penalize younger disabled workers and their families because, under the present system, disability would continue to cause a partial or complete loss of future retirement or survivor benefits.

While adoption of a more limited disability program would seem an easier way to approach administrative problems inherent in launching a disability program, the anticipated advantages might prove to be illusory. The program would entail substantially the same basic procedures, techniques, and facilities as would be required for a more adequate program. Furthermore, the potentially great social value of the new program might be impaired because a minimum of emphasis on recovery, rehabilitation, and return to work would be required under a limited program applying only to older workers. Since it may fairly be concluded that large numbers of disabled workers ultimately become public charges in the absence of social insurance protection, the expectation that a limited program will result in lower costs to the Nation is also largely illusory. The Social Security Administration continues to be convinced of both the need for and the feasibility of providing insurance protection to all covered workers against the risk of extended total disability.

Financing an Expanded Program

A long-range plan should be developed to assure that, not only in the years immediately ahead but also in the more distant future, ample funds will be available to finance benefit payments. With practically complete coverage of the gainfully employed and their dependents, the Administration believes, provision for a Government contribution, as well as contributions of employers and employees, becomes equitable and appropriate. A Government contribution toward financing the program would be partly offset by the reduction in costs of public aid, particularly because of the inclusion of permanent disability benefits. The ultimate cost of benefits under an expanded system of old-age, survivors, and permanent disability insurance should be distributed among employers, employees, and the Government in relation to the degree to which coverage is extended and the method of financing other types of social insurance benefits.

UNEMPLOYMENT INSURANCE

The fiscal year 1946–47 was a year of great economic activity, outstandingly high levels of employment, and low levels of unemployment. This year witnessed the peak of the postwar boom and the beginning of its liquidation and covered a period of great economic tensions and pressures that made for a relatively heavy claims load. In July 1946 the demobilization of the armed forces was nearing completion, the technical reconversion of the country's industrial plant was completed, and production was gaining momentum after a brief set-back in the preceding February. The Nation had achieved remarkable success on its way back to a peacetime economy.

The elimination of many governmental controls coincided with the beginning of the fiscal year and ushered in a period in which problems involving prices remained a major domestic issue. Despite those problems, the major labor-market development in 1946–47 was the absorption of the growing civilian labor force by expanding production. In only one month, June 1947, did unemployment, as estimated by the Bureau of the Census, exceed the 2.5 million that is generally regarded as the normal average frictional and seasonal unemployment under conditions of full employment.

Changes in the size and composition of the civilian labor force in the fiscal year 1947, as compared with the preceding year, were accounted for largely by factors other than the natural growth of the population. Men—and in smaller numbers, women—were being released from the armed forces; veterans temporarily out of the labor force because of fatigue or for other personal reasons were returning to civilian occupations; women who had taken war jobs went back to their customary home work in the early part of the fiscal year and later reentered the civilian labor force. From June 1946 to June 1947 the armed forces declined by 1.7 million (from 3.1 million to 1.4 million), but the number of male veterans in the civilian labor force rose by 2.4 million (from 10.4 million to 12.8 million). The increase in the total labor force in the 12-month period cannot be measured precisely because of considerable and somewhat uneven seasonal variations in the size of the labor force in June. Comparison of the May–July averages in the 2 years indicates that the total civilian labor force increased by 3.1 million (2.5 million men and 600,000 women). Civilian employment, measured similarly, rose by the same amount. Unemployment averaged 2.4 million in both 3-month periods. The ratio of unemployment among veterans declined from 8.2 percent in June 1946 to 5.2 percent in June 1947.

The average level of unemployment was not only low for the year as a whole but did not change markedly from month to month. There was a slight decline in the number of unemployed in the autumn of 1946. In December, unemployment began to rise, and in February 1947 it reached almost 2.5 million; it remained fairly steady until May, when it dropped below 2 million, only to jump above 2.5 million in June. The gap between the supply of labor and openings for workers remained about as narrow as could be expected under conditions of full employment. The benefit load, on the other hand, was somewhat heavier than would have been anticipated under normal peacetime conditions, assuming the same level of business activity and employment. Unemployment arose from the considerable volume of shifts in production and employment, with sporadic lay-offs of workers because of shortage of materials and parts, labor disputes, and buyer resistance to high prices. In addition, there was still the problem of reemployment of veterans and displacement of nonveteran workers. All in all, it seems very likely that the Nation experienced four types of unemployment in this period: (a) less than the normal amount of frictional unemployment, that is, unemployment caused by seasonal changes, inventory shut-downs, and the like; (b) unemployment of veterans on their way back to the peacetime pattern of life; (c) unemployment of individuals displaced by veterans or by younger, more efficient workers; and (d) sporadic unemployment in some industries caused by the process of reconversion.

Various legislative enactments during the year affected the unemployment insurance system significantly. Congress amended the Federal Unemployment Tax Act, effective July 1, 1946, to authorize permanent coverage of private maritime workers under State unemployment insurance laws, thus bringing under unemployment insurance protection a group of workers whose status had been of congressional concern since 1938. In order to provide unemployment insurance for maritime workers who had been employed by the War Shipping Administration or its successor, the Maritime Commission, Congress made temporary provision for payment of benefits to these workers. Congress also amended title III of the Social Security Act and the Federal Unemployment Tax Act to permit withdrawal of employee contributions from State accounts in the unemployment trust fund for the payment of temporary disability benefits.

Forty-seven State legislatures met in regular session during the fiscal year, and 44 of them amended their unemployment insurance laws, in many instances to provide better protection to unemployed eligible workers. Lastly, on November 16, under the 1947 Labor-Federal Security Appropriation Act, the State public employment offices, which had been operated under direct Federal control during the war period, were returned to State control and operation. The United States Employment Service remained in the Department of

Labor; but with the failure of the President's Reorganization Plan No. 2 of 1947 providing for its permanent location there, it is scheduled, under the First War Powers Act, to revert to the Federal Security Agency 6 months after the official termination of the war.

Unemployment Insurance in 1946–47

Covered Workers

By July 1946, covered employment, beginning to recover after the decline from the wartime peak of 31.3 million in June 1943, had reached 30.7 million, or 7.8 million more than in July 1940. Throughout the rest of 1946, covered employment increased gradually until by December it exceeded the high point of war activity by about 670,000 workers. It fell somewhat in the early months of 1947 but gradually recovered, and by June employment in covered industries stood at approximately 31.5 million.

Many more persons have some work in covered industries during a year than are employed at any one time in those industries. About 45.8 million different individuals, it is estimated, earned some wages in covered employment in 1946, and about four-fifths of them, or 37 million, had sufficient wage credits to qualify for benefits under the State laws.

Despite the increase in the number of jobs covered by the State systems, about 12.5 million jobs were excluded from coverage under State or railroad unemployment insurance programs in an average week of the fiscal year 1947. About 1.6 million were agricultural jobs and 2.7 million were in excluded small firms in covered industries; 5.2 million were government jobs—1.9 million in the Federal Government, and 3.3 million in State and local governments; the other 3 million were jobs in domestic service in private homes, nonprofit organizations, and other excluded employments.

Maritime workers.—The Social Security Act Amendments of 1946, enacted August 10, 1946, made provision for the first major extension in coverage of the Federal Unemployment Tax Act since the original legislation of 1935. Effective July 1, 1946, services in private maritime employment, with minor exceptions, were covered by the Federal act. As a result, coverage was automatically extended to maritime workers in 13 States, and 7 additional States amended their laws accordingly. In all, 42 State laws now cover maritime workers.

Because the War Shipping Administration took over the operation of the merchant marine during the war, most wartime seamen were considered to be Federal employees and, as such, not covered by this amendment of the Federal Unemployment Tax Act. Congress therefore enacted title XIII of the Social Security Act, providing temporary reconversion benefits for maritime workers who had been employed by the War Shipping Administration or the Maritime Commission. The new title is administered by the Federal Security Administrator, who is authorized to enter into agreements whereby a State employment security agency, acting as agent of the United States, will make the payments under the provisions of its State law. The States, in turn, will be reimbursed by the Federal Government. The reconversion period during which benefits are payable will end June 30, 1949.

The provision did not go into effect immediately because the Seventy-ninth Congress did not appropriate funds for benefits under the program and title XIII specified that no benefits could be paid for unemployment occurring before such funds were appropriated. The 1948 appropriation to the Federal Security Agency included $900,000 to pay the benefits provided, and they became payable for unemployment on and after July 8, 1947, the date the appropriation bill was signed.

While the program of reconversion unemployment benefits for seamen is of relatively short duration and affects only some 200,000–250,000 individuals, all States have entered into agreements with the Federal Security Administrator to administer the provisions. Cooperation of all States was necessary since many maritime employees, drawn from every State into the merchant marine by wartime pressures and inducements, returned to their homes and peacetime pursuits when the ships were returned to private operation.

The act provides that seamen's Federal maritime service and wages shall be included as wages and services under State laws in accordance with regulations prescribed by the Federal Security Administrator for the allocation of the service and wages among the States. Since the services performed by the men of the merchant marine were not localized in any State, the basis for such allocation was a major problem confronting the Social Security Administration. The problem involved questions of convenience for the unemployed seamen in filing claims for benefits, the prompt payment of benefits, and the avoidance of duplicate claims. The decision, as promulgated in a Federal regulation, was that War Shipping Administration wages and services of an unemployed seaman should be allocated to the State in which he first filed his claim for reconversion benefits. Once the wages are allocated to a State, they cannot be transferred to any other State.

Preparation for the administration of the program included the drafting of an agreement to be entered into by the State employment security administrators and the Federal Security Administrator, and of regulations establishing the procedure to be followed in allocating wage credits, determining benefits and handling appeals, keeping agency records of and making reports on claims and benefits, making requests for advances or reimbursements for benefit costs, and reporting any apparent violation of the act. Suggested procedures for integrating the seamen's temporary benefit program with the State program and for requesting advances or reimbursements, as well as drafts of material for use in an informational program, were developed and incorporated in a manual that was sent to the States as a guide in the development of their own administrative procedures. Provision was also made for obtaining data on the operation of the program.

In developing its plans the Social Security Administration consulted with union and employer groups in the maritime industry as well as with other Federal agencies. Conferences were held with representatives of the State employment security agencies, all of whom were extremely helpful in working out the plans.

Other groups.—Congress made no extension of coverage to other groups, nor did the States generally extend the coverage of their laws. By and large the States seemed to be waiting for congressional action. During the fiscal year, 5 States provided for automatic extension of coverage to new groups that may be brought under the Federal Unemployment Tax Act. The number of States that can take immediate advantage of any broadening of the coverage of the Federal act was thus raised to 21. Twenty-nine States will cover small employers when and if they are covered under the Federal act, but no State extended coverage to small firms during the year; 22 States still limit coverage to employers of eight or more. New York amended its act to cover its own State employees, and Tennessee covered workers in nonprofit institutions, joining Hawaii in including such provisions.

Claims and Benefit Payments

Claims.—In July 1946, unemployed workers filed 699,000 initial claims and 5.5 million continued claims for benefits. Although those figures were well below the peaks established immediately after the surrender of Japan, they constituted a substantial claims load for the State agencies. The number of persons filing initial claims rose to a million in January 1947, declined to a level of about 725,000 in February and March, and then increased to more than a million, ending the fiscal year at about 880,000. Continued claims declined to 3.5 million in November and then increased somewhat but remained well below the number filed in the same month of the previous year.

Heavy as the claims load was throughout the year, it was low in comparison with the number of workers employed in covered industry. As the fiscal year opened, insured unemployment was 4.6 percent of average monthly employment; by November the ratio had declined to 3.0 percent. It increased to 4.1 percent in January and stayed at about 4 percent for the rest of the fiscal year.

Interstate claims.—Except for a slight upswing at the beginning of the fiscal year, the ratio of interstate claims, both initial and continued, to all claims decreased throughout the rest of the year. In June 1947, interstate claims comprised 4.6 percent of all initial claims and 4.9 percent of all continued claims, as against 8.7 and 10.0 percent, respectively, in the preceding August.

Interstate claims were paid more promptly in the period April–June 1947 than in the earlier quarters of the fiscal year. By their nature, however, the procedures used for interstate claims are slower and more cumbersome than intrastate claims procedures. The State where the claimant files his claim acts as "agent" for the State in which he has benefit rights. As agent, its activities and responsibilities are confined to collecting and transmitting information; all decisions must be made by the State liable for the payments. Difficulties arise partly from lack of uniformity in approach and interpretation as well as in statutory provisions, and partly from failure of agent States to transmit to liable States all the information pertinent to the initial claim.

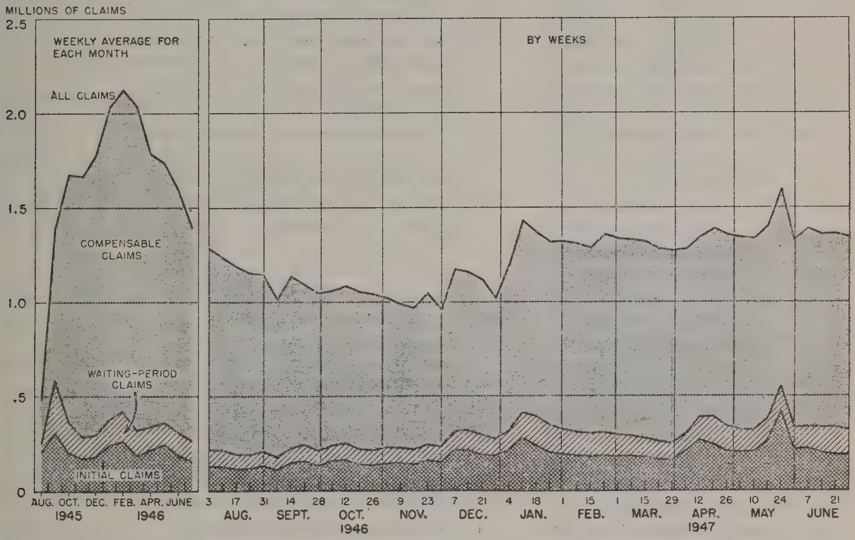


CHART 9.—*Weekly number of claimants for unemployment benefits, August 4, 1945–June 28, 1947*

For some time the State employment security agencies and the Bureau of Employment Security had been considering various ways of handling interstate claims that might be simpler and quicker. After considerable discussion and developmental work, an experimental plan for determination and payment of interstate claims was put into effect on January 1, 1947, by seven States—Arkansas, California, Georgia, Louisiana, Minnesota, North Dakota, and Oklahoma.

Under this experiment, the liable State makes the initial determination of the individual's eligibility and of his potential benefit rights, as at present. After that determination, however, the agent State makes all subsequent eligibility or disqualification determinations and pays the weekly benefits, billing the liable State for reimbursement. It is too early to evaluate the effectiveness of the experimental procedure. Reports are being collected on its operation, however, and the procedure will be observed carefully.

Time lapse in benefit payments.—As was expected, the tremendous increase in the intrastate claims load immediately after the Japanese surrender severely strained the facilities of State agencies for processing claims and paying benefits. As soon as the initial impact of the volume of claims was overcome, however, payments were made more promptly. In each quarter since the middle of 1946 there has been some improvement in the promptness of processing these claims. Most State agencies are now making payments fairly promptly but, in general, payments are still delayed longer than they were in prewar days. Factors adversely affecting the promptness of payments are biweekly claimant reporting and biweekly payment of claims—scheduling arrangements adopted by State agencies to deal with the abnormal load.

Benefit payments.—The heavy claims load resulted in substantial payments. In all, $834 million was paid out in benefits during the fiscal year. This amount, however, was only three-fourths of the sum expended in the preceding fiscal year.

Not all persons who filed claims for benefits received them. Of the 5.1 million who filed claims and had sufficient wage credits to qualify for benefits, about 4.1 million or 80 percent drew benefits. Some who did not receive benefits were declared unavailable for work or were disqualified for various reasons, but by far the larger proportion were reemployed during the waiting period.

Amount and duration of benefits.—Despite good employment opportunities in most sections of the country, the average beneficiary received benefits for 11.6 weeks, longer than in any other fiscal year, even the preceding one, when the average was 11.1 weeks. On the average, claimants had 1.5 spells of unemployment as compared with 1.3 spells in the preceding year. In all, benefits were paid for 46.9 million weeks of unemployment, or about 80 percent of the number of weeks compensated in 1945–46. Since most of the unemployment resulting from mass lay-offs in certain industries was temporary, the figures on average duration and total number of weeks compensated are probably swollen by the longer periods of unemployment of marginal workers, who had great difficulty finding other jobs. This fact probably explains why, in a year of peak employment, almost 1.4 million claimants, or about 34 percent of all beneficiaries, exhausted their benefit rights.

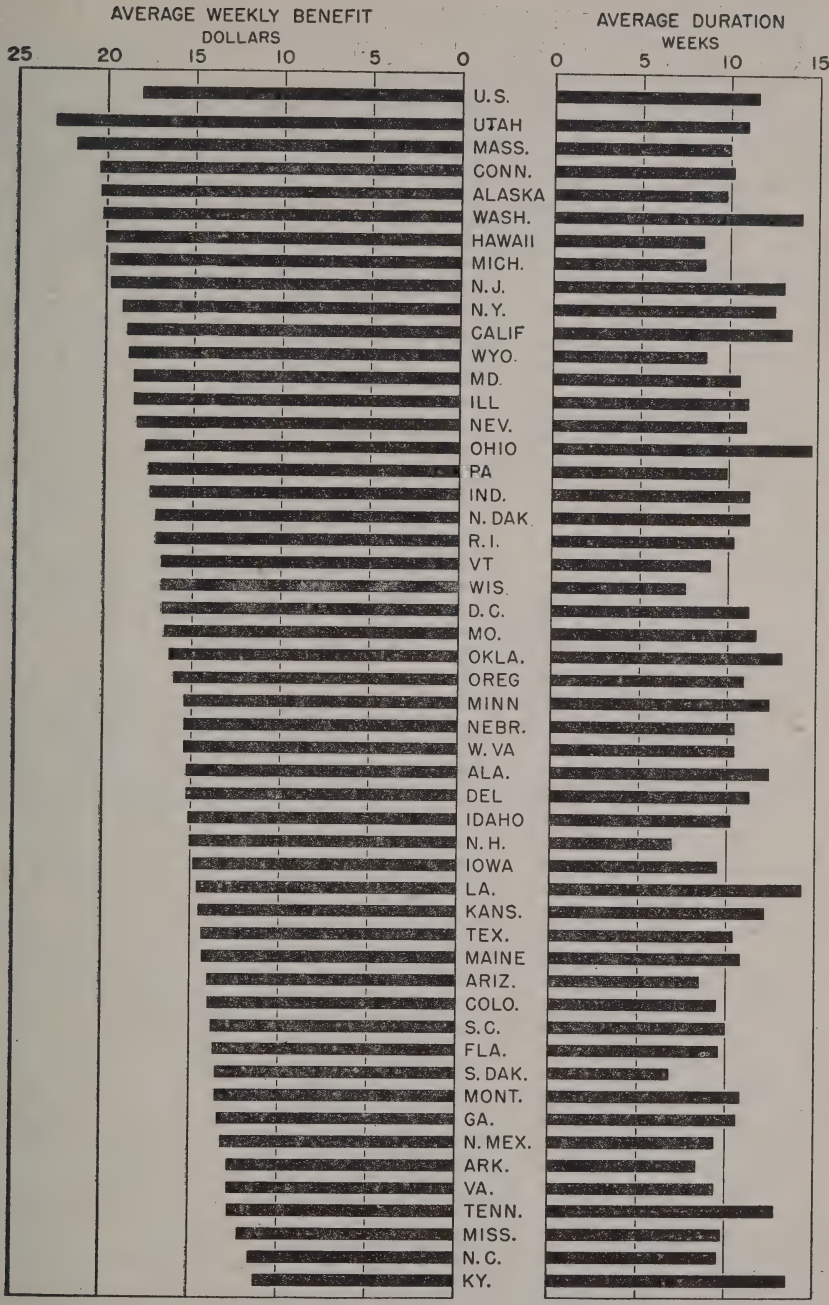


CHART 10.—*Average weekly benefit for total unemployment and average actual duration of benefits for all types of unemployment, by State, fiscal year 1946–47*

In general the exhaustion rates were higher for women beneficiaries than for men.

During the fiscal year, weekly benefit amounts received by totally unemployed beneficiaries averaged $18.05, somewhat less than the record $18.74 paid in the preceding fiscal year. During the year the average weekly benefit payment declined as wartime earnings became less of a factor in computing a worker's benefit rights and the benefits came more and more to be based on earnings in peacetime industries. The national average weekly benefit amount conceals variations among the States, where the averages ranged from a low of $11.28 in Kentucky to a high of $22.90 in Utah, which has a statutory provision for adjusting weekly benefits to the cost of living.

In April 1947, Massachusetts joined Connecticut, the District of Columbia, Michigan, and Nevada in providing supplementary allowances for claimants' dependents. The average weekly payment to beneficiaries who received dependents' allowances during September 1946–March 1947 was about one-fifth more than they would otherwise have received. Among all beneficiaries in the four States, 44 percent of the men but only 6 percent of the women benefited by these allowances. These proportions varied from State to State because of differences in the "dependents" for whom allowances can be paid and in the maximum amounts payable.

The most notable improvements made in the State laws during the legislative sessions of 1947 were in adjusting benefits to more nearly approach a reasonable proportion of the wage loss experienced by unemployed workers. While rising wages and increasing living costs have been Nation-wide and unemployed veterans have been receiving readjustment allowances of $20 a week, 10 States in July 1946 still had the $15 maximum limit characteristic of early unemployment insurance laws. By the close of the fiscal year, 7 of these 10 as well as 10 other States had increased the maximum weekly benefit amount.

In other ways, too, some States amended the benefit provisions of their laws during the 1947 legislative year to keep in step with the advances made by other States in earlier years. Of the 10 States that increased the maximum weekly benefit (other than those with the $15 maximum), 5 had had maximums of more than $15 but less than $20. Three States with a maximum of $20 increased the amount—2 to $25 and 1 to $22 a week. Two with maximums above $20, including dependents' allowances, increased the maximum. By the end of the fiscal year, 37 State laws provided maximum benefits of $20 or more.

As would be expected, maximum annual benefits were increased in all States that raised the weekly benefit amount. Eleven States increased the maximum weeks of duration, and one reduced the maximum from 14 weeks, for those who qualified for the maximum, to a uniform period of 12 weeks for all claimants.

Eligibility and Disqualification

Probably the most difficult job in unemployment insurance administration is determining whether a claimant is entitled to benefits. While the actual amount and duration of benefits which a worker can receive, as well as the past employment or earnings he must have had in covered work, are set forth specifically in State laws, the determination whether an individual is to receive benefits also involves a decision as to whether he is in fact able to work and available for work and is not subject to disqualification for reasons specified in the State law. Such a decision depends on administrative interpretation, and in reaching its conclusion the State agency must weigh numerous factors. As a result, there is great variation among States in interpreting their laws, even when the provisions are identical. Moreover, these decisions and amendment of the legislative provisions governing them are more sensitive than any other element of the program to labor-market conditions, labor-management disputes, and public attitudes toward the program.

In the fiscal year 1947, interpretation of the eligibility and disqualification provisions of State laws was affected greatly by the widespread industrial disputes that had taken place in the preceding year and by the fact that workers were drawing benefits while shortages of labor prevailed. The amendments to the eligibility and disqualification provisions passed during the 1947 State legislative sessions were of varying character. By and large, however, the relative number of persons disqualified during the year and the severity of the disqualifications were about the same as in the preceding year.

As an aftermath of the widespread industrial disputes in 1946, the State agencies were faced with thousands of claims from workers whose unemployment was due directly or indirectly to a labor dispute. In general, unemployment insurance laws disqualify workers who are unemployed because of a labor dispute that exists in the establishment where they last worked; 33 States provide that the labor dispute must have resulted in a work stoppage. Pennsylvania and Tennessee amended their labor-dispute provisions during the year to remove the limited disqualification period of 4 weeks. As a result, only 2 States now limit the disqualification to a specified number of weeks, and both of these States require a waiting period longer than normal.

Availability for work.—In 1945–46, State agencies were mainly concerned with the problem of determining what constituted suitable work for claimants displaced from war jobs. During the past year the emphasis shifted to determining the availability of claimants for work. This shift may have been due to public criticism of the program that developed in areas where workers were drawing benefits while shortages of labor existed. For the most part, this situation existed because the workers who were unemployed did not fit the specifications of employers who needed workers and because the jobs offered were not suitable. When no suitable jobs are available to them, workers may properly draw benefits in the face of labor shortages. When such a situation occurs, however, the administrative agency should investigate to make certain that workers are referred to suitable jobs if any are available and that the workers are, in fact, available for work. This situation should not be used as a reason for automatically disqualifying workers who are available for suitable work.

In attempting to test the availability of claimants for work, a requirement that claimants be "actively seeking work" was added in eight States by legislative enactment, and in other States by administrative or judicial interpretation.

A requirement that claimants be actively seeking work is inherent in the availability provision. To establish his availability for work a claimant should be expected to do what any reasonable man in the same circumstances would do to obtain work suitable for him. In some occupations in which job openings are normally channeled through the employment service, registration at an employment office constitutes an active search for work. In other occupations, more may be required. When a claimant first registers for work, he should receive suggestions of reasonable methods by which he may be able to obtain work. To construe "actively seeking work" as requiring that all claimants make an independent search for work, regardless of the usual method of obtaining work in their occupations or the specific local labor-market situation, would involve many workers in a fruitless and aimless search for work which the coordination of the employment service and the unemployment insurance system was designed to avoid.

Extent and type of disqualification.—Disqualifications under State unemployment insurance laws take two forms: postponement of benefits either for a specified period or for the entire time the claimant remains unemployed or until he has been reemployed and earned specified amounts; or reduction in the amount of benefits for which he is eligible, combined with a postponement period or a cancellation of some or all potential benefit rights. In 27 States, disqualification provisions only postpone benefits for the three major statutory causes—voluntarily leaving a job without good cause, refusal of suitable work without good cause, and discharge for misconduct connected with the work—while 24 States either reduce benefit rights, in addition to postponement, or cancel them for one or more of these reasons. During the 1947 legislative sessions, Idaho and South Dakota deleted the provision requiring cancellation of wage credits, while Maryland and Tennessee added such a provision, although not in connection with the three major disqualifications.

Of the 373,000 disqualifications imposed from July 1946 to March 1947 for all reasons except labor disputes and receipt of other remuneration, three-fourths involved only postponement of benefits, while the other fourth reduced or canceled benefit rights. Among those involving postponement only, 33 percent postponed benefits for less than 6 weeks, less than 1 percent for 10 or more weeks, and 50 percent indefinitely—that is, for the duration of the claimant's unemployment or until he has earned a specified amount. Among the one-fourth that reduced or canceled benefits, 48 percent reduced benefits for less than 6 weeks, 12 percent for 10 or more weeks, and 12 percent involved complete cancellation.

Appeals

Lay-offs following the Japanese surrender not only caused a tremendous increase in claims but also brought a relatively greater increase in appeals, which continued to increase in this fiscal year. While there were 19 appeals dispositions for every 1,000 initial determinations during July–December 1945, in the corresponding period of 1946 there were 32. In addition to these appeals under the unemployment insurance system, the State appeals bodies heard and disposed of many thousands of appeals under the servicemen's readjustment allowance program.

Three important factors in the rise of appeals were the restrictive policies on eligibility, the relatively new and untrained personnel in the local offices, and the lack of familiarity with the program on the part of workers who had entered the labor force during the war. There were other contributing factors, also, such as the wave of labor disputes.

Appeals organizations had been small, with a handful of referees, stenographers, and clerks. To meet the rise in the volume of work, staffs had to be doubled and quadrupled. New personnel had to be found and trained, and often the entire appeals organization had to be recast. Appeals bodies made every effort to meet the almost impossible demands made on them. In the 4 months January–April 1947, they disposed of 68,300 unemployment insurance appeals, almost three times as many as in the first 6 months of 1945. Nevertheless, at the end of April 66,800 cases, many of them months old, still awaited disposition.

The Bureau of Employment Security helped in every way it could. In some regions, conferences of appeals personnel and attorneys were held to discuss mutual problems—more efficient conduct of hearings, procedures, finding and training additional staff, writing brief but adequate decisions, and improving determinations to reduce the number of appeals necessary. Technical assistance, within the limits of available staff, was furnished State agencies that requested it. Such assistance included surveys of methods and organization and the development of suggested simplifications to speed up the handling of cases. Methods and ideas found useful in some of the agencies were made available to appeals bodies in other States having similar problems. For example, one device successfully used to meet the need for stenographers was the use of machines to record testimony at hearings. In addition, State agency staff members were invited to Washington for training by Bureau technicians in various phases of appeals administration, such as the development and use of precedent manuals.

Financing Benefit Costs

Funds available for benefits.—Despite a benefit outlay of $834 million in the fiscal year, funds available on June 30, 1947, stood at $7 billion, or $300 million more than they had been a year earlier. Contribution collections totaled $1,002 million and exceeded benefits by $168 million. The rest of the increase came from the $132 million in interest credited to the State accounts in the unemployment trust fund of the Treasury.

Although the increase in reserves was greater than during the preceding fiscal year, it was very small in comparison with the growth during the war years when, for example, reserves jumped by $1.3 billion between June 30, 1944, and June 30, 1945. Two factors kept the reserves from rising sharply despite the high levels of employment and taxable wages during the year. The adjustments in our economic system incident to the redevelopment of peacetime production caused high benefit expenditures—the second highest fiscal-year total in the history of the program. In addition, collections declined as a result of a drop in the average effective tax rate for the Nation and a reduction in the war-risk contributions which were levied in several States. The tax rate declined from 1.6 percent in the preceding fiscal year to 1.5 percent—the lowest point since 1937—largely because under the experience-rating provisions in most State laws the rates were based on the low benefit expenditures during the war years.

The reserves of all but six States increased along with the increase for the country as a whole. The decreases occurred in some of the larger, more industrialized States; in Massachusetts the reserve dropped 8 percent during the fiscal year, but the decline in the other five did not exceed 2.5 percent.

The ratio of total funds available for benefit payments to the amount of taxable wages in the previous calendar year declined from 11.5 percent on June 30, 1946, to 11.3 percent a year later. No State had a reserve of less than 6.6 percent of 1946 taxable wages, and every State had in reserve the equivalent of at least 2.8 times its highest annual benefit outlays. Nationally, funds available for benefits were equivalent to 6.4 times the amount paid out in 1946, the year of greatest expenditures; in 38 jurisdictions, reserves were as high as the national ratio, or higher, in relation to maximum annual benefit outlays.

Benefit disbursements, which had exceeded tax collections by 8.2 percent during the fiscal year 1946, ran 16.8 percent below collections during the fiscal year 1947. Outlays in 26 jurisdictions amounted to less than half of collections. In 9 States, however, benefits exceeded collections by anywhere from 10 to almost 75 percent.

Experience rating.—The 1947 legislative sessions were characterized by proposals for experience rating in States that have been without such provisions and by efforts to obtain further rate reductions under existing experience-rating provisions. Alaska, Montana, Rhode Island, Utah, and Washington all adopted experience rating for the first time.[3] Mississippi, where the legislature was not in session, remains the only State with a statutory provision for collecting the tax at the full 2.7-percent rate from all employers.

Each of the five States adopting experience rating for the first time departed from systems using, as the sole measure of an employer's experience, benefit payments or any factor directly based on benefit payments. Alaska and Washington have rate formulas using an employer's experience with annual pay-roll declines, Rhode Island has a formula using quarterly pay-roll declines, and Utah a formula based on a combination of annual and quarterly pay-roll declines plus the number of years an employer has paid contributions. In Utah the pay-roll approach is experimental in that the legislative council is to study the actual operation of the pay-roll decline system and an alternative benefit-ratio plan and make recommendations by December 1948. The laws adopted in these four States avoid experience rating's greatest drawback—the close relationship between the benefits paid an individual worker and his employer's tax rate. The experience-rating formula adopted in Montana requires the Unemployment Compensation Commission to take account of annual pay-roll declines, the number of years an employer has paid contributions, and the benefits charged to his account.

New York made a major change in its experience-rating formula. While retaining two of the three factors on which measurement of an employer's experience with unemployment was based—pay-roll declines from quarter to quarter, and number of years in which contributions have been paid—it substituted the ratio of benefit wages to total wages for the former factor of pay-roll declines from year to year.

The trend away from reserve accounts, for which the requirements in the Federal act are much more stringent than they are for pooled funds, continued in the 1947 sessions. Nebraska and South Dakota now have pooled fund laws, and only Kentucky and North Carolina have individual employer reserves.

---

[3] Previous experience-rating provisions in the Utah law had been deleted before they became operative.

As would be expected in a period when reserve funds remained high, there was considerable support in State legislatures for changes in the experience-rating provisions to make it easier for employers to get lower rates or to lower existing rates. Penalty rates (above 2.7 percent for employers with unfavorable experience) were eliminated in 4 States and suspended for 1947 in another. At the end of the fiscal year, only 13 States had provisions for assessing any employer, however bad his experience with the risk of unemployment, at a rate above 2.7 percent. Reserve requirements for reduced rates had been lowered in 16 States and minimum rates reduced in 18.

The many proposed amendments to the experience-rating provisions of State laws presented the Social Security Administration with difficult questions relating to the conformity of the State laws with the additional-credit provisions of the Federal act. One question of far-reaching importance was whether a plan based on annual declines in pay rolls permitted reduced rates on the basis of an employer's experience with the risk of unemployment. Alaska and the State of Washington proposed plans that based experience rating on pay-roll declines rather than on benefits paid. In both jurisdictions, employers engaged in seasonal industries objected to the use of quarterly declines in pay roll. Seasonal employment is the rule rather than the exception in Alaska's three principal industries—salmon canning, gold mining, and general construction—while Washington's chief industry is highly seasonal logging and lumbering.

The Social Security Administration decided that rates based entirely on the general downward or upward trend of each employer's business as reflected by annual pay-roll declines would be consistent with section 1602 (a) (1) of the Internal Revenue Code. Since annual declines give little reflection of seasonal unemployment or of unemployment due to labor turn-over within a year, they are not closely related to the benefit costs under an unemployment insurance program, nor do they give evidence of the day-to-day risk of unemployment. They do, however, relate rates to economic trends as they affect all business and to special trends affecting the particular industry in which an employer is engaged. The legislatures of Alaska and Washington adopted annual pay-roll declines as the measure of experience in determining rates.

As the States considered the use of quarterly pay-roll declines to measure experience, questions arose about the treatment of declines that were caused by a labor dispute or some catastrophe, such as fire or flood. The Social Security Administration held that an employer's records may be adjusted to eliminate the effect of declines due to a labor dispute since such declines do not usually result in payment of benefits. However, pay-roll declines resulting from fires, floods, and the like must be included in any rate determination because they do usually result in benefit payments.

Similar difficult questions have arisen each year, as State legislatures introduce amendments designed to handle special problems and the Administration tries to administer the Federal act in the light of its specific provisions and the congressional intent. As a result the experience-rating provisions of State laws have become more complex, while basic difficulties in existing provisions remain—that is, contribution rates tend to vary inversely with the business cycle, the rate structure penalizes new employers, employers in the same industry and with the same experience in different States pay different tax rates, and in most States the fact that tax rates depend on benefit charges encourages employers to resist payment of benefits to their former workers.

Financing Administrative Costs

The regular title III appropriation for 1946–47 provided $49.0 million to finance the administration of the 51 unemployment insurance laws. Work loads for the first half of the fiscal year, however, were larger than were provided for in the regular appropriation, and a deficiency appropriation of $9.1 million was requested by the Social Security Administration and approved by Congress, effective May 1. Thus, a total of $58.1 million was appropriated for State employment security agencies for 1946–47. In addition, these agencies received approximately $30.5 million from the Veterans Administration for the operation of the veterans' readjustment allowance program.

The procedure established last year for State participation in preparing estimates of work loads and costs as guides in determining the amount of the appropriation request under title III was continued this year. The experience gained by the States and the Bureau of Employment Security in the preceding year produced a very marked improvement in the data obtained from the States. The meetings held with the Administrative Grants Committee of the Interstate Conference of Employment Security Agencies resulted in other cooperative actions. At the request of this committee, State technicians cooperated with the Bureau in revising and improving the method of time distribution used by both the States and the Bureau in appraising State personnel needs. The standard functional code definitions used in making the distributions were revised, the code was expanded to cover employment service activities, and other changes were made to obtain more representative and accurate time factors.

Also as a result of suggestions made by the committee and the States, a new plan of State budgeting was devised that simplified the present budgeting methods by establishing a fixed number of hours for minimum work-load requirements and variable additional amounts for work-load increases in excess of the minimum. Experimental work on this type of budgeting was undertaken in seven States during the later months of the fiscal year.

The return of the public employment services to the States on November 16, 1946, as directed by Congress, required the modification of existing fiscal procedures in several areas, including instructions for the preparation and submission of budgets. In cooperation with representatives of the Veterans Administration and the Department of Labor, these instructions were revised so as to provide for the submission of joint budgets covering the financial needs of the State unemployment insurance, veterans' readjustment allowance, and State employment service programs. Similar action was also taken in developing a framework for the issuance of joint fiscal standards, including methods of accounting and financial reporting.

Temporary Disability Insurance Coordinated With Unemployment Insurance

The fiscal year saw increasing interest among State employment security agencies in the question of cash benefits to individuals unemployed because of illness, although no additional States joined California and Rhode Island in enacting such legislation. These two States, however, took advantage of the amendment to the Social Security Act permitting withdrawal of employee contributions deposited to the State accounts in the unemployment trust fund to pay temporary disability insurance benefits. California withdrew a part of the employee contributions for 1944 and 1945, and the Rhode Island Legislature authorized the withdrawal of all employee contributions. Fourteen other State legislatures considered temporary disability insurance legislation. In some States, three or four different plans were introduced. In one State a bill was passed by the legislature but vetoed by the Governor on technical grounds; the provisions of the bill, however, could have become effective only when Federal legislation was enacted. In another State, where the legislature adjourned after having considered several bills but taken no action, the Governor announced his intention of calling a special session on temporary disability insurance.

Rhode Island and California amended their laws. In Rhode Island, although the maximum weekly benefit and maximum potential duration for unemployment insurance were raised to $25 and 26 weeks, maximum cash sickness benefits were kept at $18 for 20.3 weeks. The disability insurance contribution rate was lowered from 1.5 percent to 1 percent effective July 1, 1947, and the amount available for administration was increased to 6 percent of contributions. California's chief amendments increased the maximum benefit amount and maximum potential duration for both unemployment and disability benefits to $25 and 26 weeks and provided for the payment of benefits for days of disability, rather than for full weeks only, after a waiting period of 7 days in each spell of disability.

Benefits under the California law became payable December 1, 1946. Unlike the Rhode Island law, which includes all covered workers under the State fund, the California law permits employers to contract out of the State-wide fund if the private plan meets certain standards specified in the law. By the end of June 1947, after 7 months of benefit payments, 80,000 individuals had filed disability claims under the State fund, and 18,000 had filed under private plans.

In order to aid States considering the extension of their unemployment insurance plans to include temporary disability insurance, the Bureaus of Research and Statistics and of Employment Security in January issued a revision of an earlier statement on temporary disability insurance coordinated with unemployment insurance. This publication dealt with the substantive and administrative problems that a State would have to meet in enacting and putting into effect such a program.

Other Aspects of Federal-State Administration

One of the chief functions of the Bureau of Employment Security is to assist State employment security agencies in performing a more efficient job and to offer leadership to the States in providing for a sound system of unemployment insurance. The Bureau's staff gives general suggestions to all States and, on request, individual advice and help to specific States. Because it receives and studies reports from all States, the Bureau also serves as a clearinghouse of information on legislative, interpretative, operating, and statistical experience of all States. The Bureau has also helped the State agencies in developing a broad informational program.

Relations with the employment service.—The return of the employment services to the State agencies brought with it serious problems of absorption of staff and organization in the States, as well as problems of coordinating the work of the U. S. Employment Service and the Bureau of Employment Security. The Social Security Administration has continually stressed the need for the closest coordination of the employment service and unemployment insurance for the purpose of promoting the utmost efficiency and economy in operations. A majority of the State agencies have been in agreement with this philosophy and have provided for a single State administrator responsible for the direction of the entire employment security program; they have also provided for fiscal, personnel, and research divisions serving both the employment service and unemployment insurance. This same philosophy has prevailed in the operation of the local employment offices. In most local offices, one manager is responsible for all the activities of the office, including both the employment service and unemployment insurance.

During the year the Bureau and the Employment Service, in cooperation with the State agencies, worked constantly for the improvement of placement and benefit activities. The Bureau and the Employment Service also developed joint fiscal, personnel, auditing, statistical, and other procedures in order to simplify as much as possible the problems involved in a single State agency's having to deal with two Federal agencies administering two programs. This cooperative work has greatly simplified the problems for the State agencies. Many of the remaining problems should be eliminated with the return of the Employment Service to the Federal Security Agency after the expiration of the First War Powers Act and in the absence of further legislation.

Legislative advice.—The Bureau assisted the State agencies in preparing for the State legislative sessions as well as while the proposed amendments were being considered. Methods used successfully by some States in legislative planning were described to all State agencies. General informational material on the goals toward which unemployment insurance should aim in 1947 was sent to all States, as well as a general statement on legislative policy covering all phases of the unemployment insurance program. In addition, every State with a legislative session this year received individual legislative service, adapted to the economic and social conditions within the State. This service was given in various ways: through analyses of individual State laws and recommendations for their improvement, through legislative conferences in some regions and in some States, through review for policy and conformity of bills introduced during the legislative sessions, and through keeping the States advised of legislative developments in other States.

Development of a sound benefit formula without wage records.—In line with its responsibility for continuous study of the operation of the unemployment insurance system in order to suggest ways of improving it, the Bureau has for some time been interested in developing a sound benefit formula that would permit the elimination of the wage-record files for all covered workers, maintained by most State agencies for the purpose of benefit determinations. Maintenance of this central office file is costly, particularly in view of the fact that only a small proportion of the wage records is ever used. Even when claims loads are heavy, claimants represent only a small proportion of covered workers within a year. Moreover, unlike the situation in old-age and survivors insurance, where lifetime wage records are needed to compute benefits, the wage records on which unemployment insurance benefits are based become obsolete after 1½ to 2½ years.

The experience of the States indicates that no significant progress can be made in eliminating periodic wage records under most existing benefit formulas, which base benefits on highest quarterly earnings. The limitations imposed by periodic wage reporting, on the other hand, have prevented desirable improvements in the benefit formula. Consequently, the Bureau developed in tentative form two alternative benefit formulas and administrative plans that attain the dual objective of improving the formula and eliminating wage records. These proposals were discussed during the year at a conference with a group of State technicians, who endorsed their objectives. A memorandum summarizing the proposals was released to all State agencies to stimulate discussion while the plans were still in the developmental stage. Information and advice were obtained from the States, particularly as a result of field work in Michigan, Ohio, and Wisconsin, for use in refining the original proposals. A release describing the revised plans has been distributed to the State agencies.

Interpretive work.—Because the fiscal year was one of labor unrest and of unemployment existing side by side with job openings, the Bureau continued its work of developing basic principles for the application of the eligibility and disqualification provisions of State laws. To assist State agencies in meeting these current problems, the Bureau issued two statements of principles, one by a staff member of the Illinois agency on the principles underlying the labor-dispute disqualification in the State laws and the second on the prevailing conditions-of-work standard in the State and Federal acts. The Bureau also sponsored several conferences at which State and Bureau personnel participated in discussing the problems in applying eligibility and disqualification provisions. The principal topics were wage and skill differences in determining the suitability of work, the requirement that claimants must be actively seeking work, and the application of the labor-dispute disqualification.

Operating problems.—During the year the Bureau provided technical assistance, through 28 field surveys in 20 States, on almost every aspect of State agency operations. In 14 States the surveys covered claims-taking, claims determination and processing, and benefit payments. Various recommendations were made, and many have been accepted. The State agencies have adopted widely differing operating methods. Because of differences in laws, volume of work, economic and geographic conditions, and other factors, operating methods cannot be identical in every State. There are, nevertheless, good and bad methods, high-cost and low-cost procedures. The Bureau, in its surveys and field visits by technicians familiar with procedures of many States, assists the State agency in developing the method most effective for the particular situation. In addition, general suggestions on methods and procedures are developed. As improved techniques were developed by State agencies or the Bureau, they were circulated for the consideration of all States. For example, descriptions of a method of reconciling benefit checks and suggestions for ways of routing claimants in local offices that had been used and found effective by some agencies were distributed to all States. The Bureau also continued its work on such subjects as field-audit activities, central-office benefit operations, cost and performance data on the use of mechanical equipment, and criteria for measuring the effectiveness of State agency operations. In several States, with the full cooperation of the State agencies, a program was installed for obtaining exact information on differences in time spent on various operations and on the relationship of such differences to procedures.

Coordination and dissemination of information.—With the end of the war, interest increased in the data growing out of the program. To make certain that these data are comparable among the States and to aid States in obtaining the data in the most efficient way, the Bureau initiated a program for verifying statistical reports that has been welcomed by the States. It also sponsored three biregional conferences to promote the growth and more effective utilization of State research and statistics work.

The Bureau, by arrangement with the Veterans Administration and the Railroad Retirement Board, continued to release each week a combined report on insured unemployment, based on claims filed under the three Nation-wide unemployment benefit programs—State unemployment insurance, veterans' readjustment allowances, and railroad unemployment insurance.

During the past year, State agencies showed a heightened interest in the greater development, for the information of the general public, of the employment and pay-roll data collected from employers on quarterly contribution reports. Since the Bureau of Labor Statistics of the Department of Labor was setting up a current monthly employment series, by industry, for each of the 48 States, which logically must be based on data from these contribution reports, the Bureau of Employment Security initiated the coordination of this project with the work of State agencies in the employment statistics field. In accordance with a Bureau of the Budget ruling, arrangements were made whereby any technically equipped State employment security agency may, if the State government so desires, become the local agent for the Bureau of Labor Statistics, subject to certain standards agreed upon by the BLS and the Social Security Administration as assuring interstate comparability. In such instances, the State agency would perform all the functions concerned with employment statistics within the State that the BLS would otherwise perform directly. Thus, the State agency is free, except for some interstate standards, to develop a program that will simultaneously meet Federal needs, specified in advance, and local needs, as determined by the agency itself, for current monthly data on employment, pay rolls, length of workweek, and weekly and hourly wage rates for individual industries and geographical areas of the State. At the end of the fiscal year, cooperative arrangements of this sort had already been made with 12 employment security agencies and were under negotiation with 14 others.

Improving Unemployment Insurance

Experience during the fiscal year 1946–47 once more demonstrated the effectiveness of the existing Federal-State system of unemployment insurance. Although it was a year of high-level employment, it was also a year of heavy turn-over and shifts in employment, resulting in heavy claims loads. The unemployment that occurred was largely concentrated among workers covered by the system or by the readjustment allowance program for veterans. Workers who became unemployed had, for the most part, relatively substantial benefits because of fairly steady employment and high wages in recent years and the substantial improvement in the benefit provisions of State laws since 1945. The program therefore constituted an invaluable resource in aiding millions of individuals during their search for work. It demonstrated that provision for unemployment insurance did not deter individuals from taking jobs when suitable ones were available. There is no doubt, moreover, that the system aided the country in attaining the highest level of civilian employment in its history.

Much still remains to be done, however, if the program is to achieve its objectives. Too many workers are still excluded from coverage. The benefits of many workers are too low to replace a reasonable proportion of their wage loss. Other workers whose past earnings and employment would entitle them to benefits are disqualified under harsh disqualification provisions or interpretation of State laws. The financing of the program needs thoroughgoing revision.

Coverage

At the beginning of the fiscal year, maritime employment for the first time was made subject to the Federal Unemployment Tax Act, and by the end of the year most workers in the industry were covered under State laws. This was the first time since 1935 that the coverage of the Federal act had been extended to any major group originally excluded. The speedy action by State legislatures to include maritime workers bears ample testimony to the effectiveness of the tax-offset device for spreading coverage quickly and uniformly throughout the country. There remains, however, the urgent need for extension of the Federal act to other groups. Even without extension of the Federal act, 29 States have extended coverage beyond the limitation of the

Federal act to employers of fewer than eight workers. Moreover, 29 States have signified their willingness to extend coverage automatically if the Federal act is amended to include smaller firms than the State law now covers. Since 1938 the Social Security Administration has recommended coverage for employers of one or more. Such action is long past due, as is coverage of other excepted groups.

Among the other excepted employments that should also be included under the Federal Unemployment Tax Act is employment by nonprofit institutions, already included under two State laws. Large-scale lay-offs from some Federal establishments at the end of the fiscal year, with the resultant unemployment of many workers who had been employed for several years by the Federal Government, have clearly demonstrated the need for unemployment insurance protection for these workers. The Administration strongly recommends that permanent provisions be made so that Federal workers will be protected when they are unemployed. We believe that one of the methods that could be used is that provided by Congress for another group of Federal employees—seamen employed by the War Shipping Administration and the Maritime Commission.

Financing Benefit Costs

In planning the financing of the unemployment insurance program, the Committee on Economic Security recommended and Congress established a 3-percent Federal tax on pay rolls. The accompanying provision, which permitted employers to offset up to 90 percent of that tax for the contributions paid into State funds, in effect established a basic State contribution rate of 2.7 percent as necessary to finance benefit outlays over a business cycle.

Eight years of State benefit experience have provided a basis for revision of the tax rate and a better understanding of the variations in benefit expenditures with changes in employment and earnings. Furthermore, vast reserves have accumulated in the unemployment trust fund since 1935 despite the fact that all but a few States, through the experience-rating provisions of their laws, have lowered their average rate far below the basic statutory rate, and that almost all States have increased the duration of benefits and most of them have reduced the waiting period to 1 week. The average effective rate for the Nation as a whole during the past fiscal year was 1.5 percent. In two States—Delaware and the District of Columbia—the average effective rate fell below 0.7 percent. Faced with automatic increases in rates for the period ahead because of increased benefit expenditures, several States amended their laws to make it easier for employers to obtain or keep their low rates. Other States reduced the maximum and minimum contributions imposed on employers. These changes have operated to place the program on almost a current financing basis, with total annual contributions roughly equaling annual benefit expenditures and leaving available reserves untouched. Estimates based on accumulated experience indicate that during a 10-year cycle the costs of the program for the country as a whole might average less than 1.5 percent if peak unemployment amounted to about 10 percent of the civilian labor force, and somewhat under 2 percent if peak unemployment were as high as 20 percent. Furthermore, a portion of this cost would be met each year by the interest earnings of the accumulated reserve funds.

The Social Security Administration therefore believes that the Federal law should be amended to provide for a downward revision in the Federal tax to 2 percent, which would permit employers to offset up to 1.8 percent for their contributions to the State system. Such a change need not affect the rate schedules of State laws, but it will more nearly reflect the actual experience of the past few years as well as conditions in the immediate future.

We recommend also that the additional-credit provisions of the Federal act be amended so that States may reduce employer contribution rates in any way they desire. Under existing standards for allowance of additional credit against the Federal tax, all reductions in rates of contributions to a pooled fund must be based on the experience of the individual employer "with respect to unemployment or other factors bearing a direct relation to unemployment risk during not less than the 3 consecutive years immediately preceding the computation date." These standards prevent State adoption of plans for rate reduction that would be simpler and more desirable for the States and also for the Nation. Many States believe it would be sounder and fairer to adjust rates on a uniform, rather than an individual employer, basis but cannot do so under existing provisions. Obviously, a uniform adjustment applicable to all employers would be simpler and more economical to administer. Moreover, under the present experience-rating provisions of State laws, a sustained sharp rise in unemployment and benefit outlays might lead to higher contribution rates at a time when the interests of economic stability would be better served by reducing or at least maintaining the same level of contribution rates.

This recommendation does not imply that States cannot, if they so desire, continue to rate employers according to their individual experience with the risk of unemployment; it merely suggests broadening the basis on which employers can get additional credit against the Federal tax by permitting a State, if it so desires, to tax all employers within its jurisdiction at reduced rates determined by the State to be sufficient to meet its liabilities.

Another advantage of permitting States to grant uniform tax reductions to all covered employers is that the existing discrimination against new firms, many of which are small and veteran-owned, could be eliminated. Under present provisions, a reduction in tax rates may not be considered until the employer has been subject to a State unemployment insurance law for at least 3 years. As a result, new employers now pay contributions for a period of years at what amounts to the maximum rate in all but 12 States, while the older, more established firms with whom they must compete pay at greatly reduced rates. If States were free to reduce the rates of all subject employers uniformly, the new employers would benefit immediately. This proposal would also remove a major obstacle to extension of coverage to groups now excluded. There has been natural reluctance to extend coverage to new groups of employers if such extension meant that they would have to be taxed for several years at a rate considerably higher than that for the vast majority of subject employers.

If States are not to be permitted to make uniform tax reductions, we recommend that immediate action be taken to amend the additional-credit provisions of the Federal act to make possible the granting of lower tax rates to new employers. Under such an amendment, newly subject employers would be taxed at the average employer tax rate in the State until they had accumulated enough experience to be rated on an individual basis. Such a device, while it would not have all the advantages of a uniform tax-reduction plan, would at least keep experience rating from discriminating against new employers and would remove a major obstacle to extension of coverage.

Further to encourage States to use their unemployment insurance reserves to the greatest possible advantage, we believe that the temporary provisions for loans from the Federal unemployment account should be made permanent and that consideration should be given to modification of the conditions for and amounts of advances to States. The availability of loans from this account during future emergencies would give States time to adjust their finances to the needs of the economic system and would increase the flexibility of their financing methods. The ready availability of such advances would also increase the over-all efficiency of the financing of the program since, in the absence of such an automatic loan which makes funds available quickly, each State must be prepared to meet all contingencies from its own resources. One way in which the loan plan would be of greater help to the States when needed would be through amendment of title XII of the Social Security Act to provide that a State's eligibility for an advance be based on the relationship of its reserve to benefit payments, that the amount of the advance be equal to the total excess of benefits over collections, and that the State be required to repay the advance within a specified period with interest at a low rate. The Federal unemployment account should be made up of the excess of Federal unemployment tax collections over total expenditures for administering unemployment insurance and the employment service.

Enactment of these recommendations would go a long way toward improving the financing of the unemployment insurance program. Any change in unemployment insurance financing, however, should take account of pressing needs for temporary disability insurance and the revenue requirements of such an insurance program. Two States have already enacted laws providing cash sickness benefits financed from employee contributions originally collected for unemployment insurance purposes. The temporary disability system for railroad workers goes still further. It provides that contributions and reserves originally intended solely for unemployment insurance can now be used for both unemployment insurance and temporary disability. Consideration should be given to permitting the States to do likewise, if they establish temporary disability systems coordinated with unemployment insurance. As a minimum, title III grants should be available to any State employment security agency administering a program of temporary disability coordinated with unemployment insurance.

Such a coordinated program offers a feasible approach to some of the untouched area of economic insecurity arising from sickness and disability. It can be of significant value to workers and employers within a State and to the State as a whole. The importance of the program to all groups, however, will depend in considerable part on the soundness and effectiveness of the provisions actually incorporated in the State law—that is, the establishment of a system that is simple, understandable, and economical of administration, returns fair value to its contributors, and furthers the basic objectives of all social insurance.

In formulating the plan for such a program, no decision is more important than that concerning the type of fund to be used in financing and administering the benefits. Sickness and disability are more common among some groups of wage earners than others and are most common among the workers whose earnings are lowest and most irregular. If the cost of insurance is not to be too great for the groups with the highest disability rates and the greatest need for protection, the risk must be pooled so that contributions from the more fortunate groups help to pay the costs of benefits to the less fortunate. This is the essence of social insurance.

Financing Administrative Costs

The administrative expenses of State employment security systems (employment service and unemployment insurance) are met through three separate appropriations: grants under title III of the Social Security Act for proper and efficient administration of State unemployment insurance laws; grants from the U. S. Employment Service, now in the Department of Labor, for proper and efficient administration of State employment services under the standards of the Wagner-Peyser Act; and grants from the Veterans Administration for the administration of the readjustment allowance program. The use of separate appropriations for financing these programs has resulted in difficult budgetary, accounting, and auditing problems despite the fact that the three Federal agencies through cooperative efforts have issued joint budgetary instructions and fiscal standards to the States. Since, in the absence of further legislation, the U. S. Employment Service will be returned to the Federal Security Agency 6 months after the official termination of the war, the Social Security Administration recommends that the administrative costs of both the State employment services and the State unemployment insurance systems be financed through a single appropriation and administered by the single Federal agency administering the social security program. Such changes should go a long way toward easing the budgetary problems of the States and should eliminate the difficulties that have developed because the State agencies have been financed through several appropriations.

We believe that Congress should also give serious consideration to the method employed in financing the administrative costs of State employment security agencies, in order to determine whether the present method—the 100-percent grant by the Federal Government for proper and efficient administration of State laws—should be continued or some alternative method adopted. Any consideration of changing the method of financing administrative costs should be tested against certain criteria, such as the following: Will the suggested method result in adequate financing in all States? Will it promote economical and efficient administration? Will it provide the flexibility necessary for a dynamic program like employment security? Will it give an incentive for maintaining an integrated and cohesive employment security system throughout the country?

Despite its difficulties, the present method of financing the administration of the system has in fact provided more adequate administrative funds than the funds provided other departments in most State governments. The availability of a pooled Federal fund for paying the administrative expenses of 51 separate programs has assured equitable treatment for all States, whether they are large or small, highly industrialized or rural. Methods employed in distributing funds among the States have been continuously improved, with the advice and help of the States themselves. State participation in the preparation of title III appropriation requests should go far toward introducing some State responsibility for the congressional appropriation. Consideration has been given to legislative provision for a contingency fund, to be available at the beginning of the fiscal year and to be used only if an increase in work loads makes it necessary. In a dynamic program, such a step seems necessary if the States are to have additional funds when the need arises.

It is clear, however, that basic changes in the method of financing administrative costs will have far-reaching implications for the entire Federal-State program. All suggested modifications must be carefully weighed to determine their effects, not on a single State or a group of States, but on all States and on the Nation-wide program of employment security.

The Nation's Stake in Unemployment Insurance

The economic picture in 1947 is in sharp contrast to the situation only 12 years ago, when the original Social Security Act was passed. Then we were emerging from a depression, and about 9 million persons were unemployed and without unemployment insurance protection. Now 31.5 million persons are employed in industries covered by the system, and practically all the 2.5 million or so persons now unemployed are claimants under the State laws, railroad unemployment insurance, or the veterans' readjustment allowance program.

While the program has never operated through a serious depression, it has made important contributions to the economic security of the Nation. During the defense program and the war years, it prevented the dispersion of the labor force and helped assure its availability when and where it was needed by compensating individuals who were unemployed because of shortages of materials and curtailment of peacetime operations. When large-scale lay-offs from war-production industries occurred immediately after the Japanese surrender, the program helped to compensate for the loss of earnings of war workers who had contributed to the war effort; when the country began reconverting to peacetime production, the availability of benefits eased the transition and helped in the orderly reconversion of the labor force. In the period ahead, this Nation-wide program should continue to make a major contribution to the stability of the economy and the well-being of the American people. That objective is now important not only to the Nation itself but also to the Nation's role in international affairs.

The method adopted for initiating unemployment insurance in this country proved its usefulness by speeding the enactment of unemployment insurance laws. Within 2 years of the passage of the Social Security Act, every State had an unemployment insurance law. There is no question that, but for positive action by the Federal Government, the situation would have been very different, as even a cursory glance at the development of workmen's compensation in this country indicates.

Furthermore, the Federal-State system is stronger today than it was originally. Benefits have been increased in amount and duration. Five States provide additional allowances for the dependents of beneficiaries. While no State law contains provisions for both maximum weekly benefits of $25 and a benefit duration of 26 weeks for all eligible workers, the goal recommended by the Social Security Administration, 11 State laws provide maximum weekly benefits of $25 or more for claimants eligible for the maximum, and 7 States pay benefits up to a maximum of 26 weeks. Among these are some of the larger industrial States, where unemployment may be heaviest. This is a far cry from 1937, when only 2 States paid a maximum of more than $15 ($16 in one and $18 in the other) and only 5 States paid benefits for as many as 20 weeks. While the development has not been uniform throughout the country—and as a result, workers exposed to risks of similar wage loss receive different benefits—the competition among the States, within the framework of a Nation-wide program, has served to push the laggard States forward to the goals recommended by the Social Security Administration and established by the more progressive States.

In some respects, however, the program is weaker than it was originally. Today 24 States disqualify a worker by reducing or canceling his benefit rights; in 1937 only 7 States had such provisions. Today 17 States disqualify claimants for voluntarily leaving their jobs, unless the cause is attributable to an employer or the employment; in 1937 only 4 laws contained such provisions. The trend toward inclusion of such provisions in State laws has lessened, however, and it is to be hoped that future State legislative sessions will delete those provisions from their laws, so that a disqualification will serve the purpose for which it was designed—limitation on the risks compensated rather than punishment for misdeeds.

The changes that have been made in the benefit, eligibility, and disqualification provisions of State systems since the early days have been within a framework of Federal legislation that gives States complete responsibility for those provisions (except for the Federal provisions protecting certain labor standards) and makes the Federal Government responsible for recommending changes that will improve the program. There is no question that the existing Federal-State system has provided a pattern in which the interests of individual States have been welded together into a coordinated Nation-wide program that has served well the workers of the country. The Social Security Administration still believes that the soundest way of providing protection to workers when they are unemployed is through a coordinated national program that covers the major risks to which the worker is exposed during his lifetime. There is no doubt, however, that the present Federal-State system of unemployment insurance has already become a vital institution in our economic life and that it can be expected to provide in the future more effective protection against the hazards of unemployment. The system is manned by persons experienced and expert in the field of unemployment insurance and conversant with day-to-day local problems but for that very reason more subject to local pressures that frequently take precedence over national needs. In such circumstances, the issues of States' rights and national needs are bound to arise even when the country, in other fields, is debating questions of national sovereignty and international coöperation. Probably these issues are part of the strength of the system, for only by interchange of ideas and active debate over policy can an institution continue to develop in a democratic society, where the people are the final determinants of public policy.

It is important for the years ahead, however, that our unemployment insurance system be so organized that it makes its maximum contribution to the maintenance of a high level of employment in the Nation. The program should be broadened to include persons not now covered, and other defects should be remedied.

It is important, too, that the employment security program continue to function as part of a comprehensive system of social security. Old-age and survivors insurance and unemployment insurance cover largely the same workers and should move in the direction of uniformity of coverage. With uniformity the reporting burden for employers would be simplified and the program made more understandable to workers. Close administrative relationships already exist between the two insurance programs in the exchange of information on newly subject employers, on proper industrial classification of employers, and the preparation of bench-mark data for estimates of employment and wages. A few State employment security agencies have successfully experimented with the use of old-age and survivors insurance wage data for determining unemployment insurance benefit rights, and many agencies have used a report form identical with that used for old-age and survivors insurance in obtaining wage data from employers subject to the State unemployment insurance law. Under the temporary program of unemployment allowances for seamen, the State agencies are obtaining the necessary wage records from the Bureau of Old-Age and Survivors Insurance. Such close administrative relationships between the two existing insurance programs must continue if efficient and economical administration is to result.

The employment security program also has close relationships with the public assistance programs. Since both are Federal-State programs, both have been subject to a single set of personnel merit-system standards and, in many ways, a single set of fiscal standards. These devices make for ease and economy of administration and should be continued and expanded.

Temporary disability insurance provisions are developing along the same sound line of coordination. The two laws already in effect, in California and Rhode Island, provide for coordination of the unemployment insurance and temporary disability provisions. Eighteen of the 23 bills introduced in the State legislatures in 1946–47 provided for administration of temporary disability insurance by the State employment security agency and for close coordination of the programs. Moreover, the closeness of these programs was recognized by Congress when it permitted the State agencies to utilize for temporary disability insurance the employee contributions collected for unemployment insurance purposes and when it permitted the funds accumulated in the railroad account of the unemployment trust fund to be used similarly. Nor should such coordination stop there; the establishment of permanent disability insurance, which the Social Security Administration believes should be an integral part of the old-age and survivors insurance program, requires coordination of both temporary and permanent disability provisions. Both programs involve the use of medical certification and rehabilitation services that are part of the basic responsibility of the Federal Security Agency.

Moreover, all the social insurance programs have common concepts and administrative and financial interrelationships that require continual review, revision, and coordination in the light of changing economic and social conditions. The costs of any one program—old-age and survivors insurance, unemployment insurance, temporary or extended disability insurance—must always be considered in relation to the costs of the other programs, for only by such coordination of the entire field can the social security program make its maximum contribution to the economy as well as to the individual and his family.

Although there is not full agreement as to what is wrong with the present employment security program and the exact remedies needed, we believe the time has come to submit the program to study and investigation by a group of experts. Senate Resolution 320, passed in 1946, authorized the Senate Finance Committee to make a full and complete study of social security and to appoint an advisory council of experts to work with it and advise it; an advisory council was not appointed, however. A similar resolution (S. Res. 141) was passed in 1947. It is hoped that such a council[4] will give serious consideration to the problems affecting unemployment insurance and the relation of unemployment insurance to all other aspects of social security. The maintenance of a high level of employment in this country is not only the major domestic problem for us in the years ahead but also of equal concern to the democratic peoples of the world. An effective and adequate program of unemployment insurance is one of the Nation's bulwarks against economic insecurity.

---

[4] An Advisory Council of 17 members was appointed in September 1947.

PUBLIC ASSISTANCE

THE SOCIAL AND ECONOMIC ADJUSTMENTS accompanying the reconversion had sharp impact on public assistance in the fiscal year 1946–47. To enable States to meet more effectively the mounting costs of assistance resulting both from an upward trend in the number of needy aged and blind persons and dependent children in the Nation and from the rise in living costs, Congress in July 1946 enacted temporary legislation amending the public assistance titles of the Social Security Act. The amendments, which became effective in October for a period of 15 months,[5] provided for increased Federal financial participation in the three types of assistance and for matching administrative costs in old-age assistance on the same basis as in aid to dependent children and aid to the blind.

For assistance to the aged and the blind the maximum on the amount of individual monthly payments in which the Federal Government will share was raised from $40 to $45. In aid to dependent children, the maximum for Federal matching was raised from $18 to $24 a month for the first child in a family and from $12 to $15 for each child in the family beyond the first. The Federal share of old-age assistance and aid to the blind is two-thirds of the first $15 of the average monthly payment per recipient, plus one-half the remainder within the maximums. Similarly, the Federal share of aid to dependent children is two-thirds of the first $9 of the average monthly payment per child, plus one-half the remainder up to the maximums. Previously the Federal share of assistance in all three programs was one-half of matchable expenditures.

The Federal Government now pays a sum equal to one-half the amounts expended by the States for proper and efficient administration in old-age assistance, as in the other two types of aid. Formerly, the Federal share equaled 5 percent of the Federal grant for old-age assistance.

The amendments made it possible for a State, if it spent as much per recipient from State and local funds as before, to increase average monthly payments $5 in old-age assistance and aid to the blind and from $3 to $4 per child in aid to dependent children. In amending the act, Congress indicated the expectation that the increased Federal funds would be passed on to recipients and not used as a substitute for State and local funds.

---

[5] The Social Security Act Amendments of 1947, signed August 6, 1947, extended the operation of these provisions from the end of 1947 to June 30, 1950.

Public Assistance in 1946–47

Administrative Steps To Implement Amendments

To assure that State public assistance agencies were fully informed about the amendments and would be in a position to take quick and full advantage of the increased Federal funds, a conference of State public assistance administrators was held in Washington on September 5 and 6, 1946.

At this meeting the Commissioner for Social Security and the Director of the Bureau of Public Assistance reemphasized the fundamental objectives of public assistance as expressed in the permanent legislation. The requirements in the Social Security Act for approval of a State public assistance plan clearly indicate that the plan should be State-wide in operation. Otherwise there can be no assurance that needy persons throughout the State will have equal opportunity to apply for and, if eligible, to receive assistance. Temporary suspension of applications, waiting lists, and other barriers to getting assistance have existed in many States. Furthermore, within many States great differences occur from county to county, not only in the chance needy persons who are eligible have of getting on the rolls but also in the likelihood of their getting the same amount of assistance as would be provided to a person in like circumstances living elsewhere in the State. It was pointed out at the conference that the increase in Federal funds gave the States opportunity to correct inequities in the operation of their plans that resulted from insufficient funds.

Attention of the administrators was also focused on the importance of sound administration in achieving the goal of equitable treatment. Under the former 5-percent addendum in old-age assistance, many States—especially those making relatively small payments—received from Federal funds somewhat less than half the cost of administering old-age assistance. The change to a 50–50 matching basis makes it possible for such States to improve the quality of their administration.

The State administrators agreed to bend every effort to achieve the goals outlined by the Social Security Administration. State agencies were advised that the regional representatives of the Bureau were ready to confer with them concerning provisions of their State plans or administrative practices that constituted barriers to equitable treatment. Since such obstacles prevent full compliance with the Social Security Act, State agencies have been asked to establish time schedules for overcoming them.

In a report of current findings of the Bureau's continuing review of State and local administration prepared for each State as of September 1946, particular attention was given to practices that limited the freedom of individuals to apply for assistance, delayed the determination of eligibility, or resulted in inequalities in the amount of assistance granted persons in similar circumstances. Some of the findings of this review, which were concurred in by the State staffs, are cited in subsequent sections of this chapter.

To guide the States in achieving the objectives set forth at the conference, the Bureau of Public Assistance has prepared and distributed proposed statements relating to the application process, establishment of the amount of assistance needed, and other aspects of administration. In accordance with established procedure for getting the benefit of State experience and judgment in formulating Federal standards and recommendations, the Bureau's regional representatives have discussed the proposed statements with State agencies, and the comments and suggestions of State staffs are being considered in revising the material.

Many States can make needed changes by administrative action. In some, however, basic problems can be solved only by legislation and fundamental changes in financing or organization that will enable the State agency to assume fuller responsibility for assuring that its branch offices or the local agencies administering the programs under State supervision are operating in accordance with the State's plan and the standards it contains.

Effects of Reconversion and Amendments on Assistance

During the fiscal year, Federal grants for old-age assistance were made to the 48 States, the District of Columbia, Alaska, and Hawaii to enable them to assist aged persons in need. Grants for aid to dependent children were made to all these jurisdictions except Nevada, which provided a small amount of aid to dependent children from State funds. Grants for aid to the blind were made to 47 jurisdictions. Missouri, Nevada, and Pennsylvania have blind pension programs operated outside the Social Security Act. Alaska has no program for aiding needy blind persons. Some general assistance, financed entirely from State and local funds, was provided in all States. Small amounts of civilian war assistance were administered by State public assistance agencies acting for the Federal Government in 41 States.

The displacement of marginal wartime workers by returning servicemen and workers with higher skills, loss of servicemen's dependents allowances, and increase in the cost of living resulted in a sharp upswing in 1946–47 in the number of persons on the assistance rolls. The additional Federal funds made available by the amendments enabled some States to aid needy persons previously unable to get help because of limited State and local funds. Many States that had been severely hampered by stringency of funds were able to absorb waiting lists, lift restrictions on the filing of applications, and liberalize eligibility conditions somewhat. The Bureau's administrative review found that in September 1946, the last month before the amendments became operative, all but 17 of the 58 State agencies administering one or more State-Federal assistance programs had some practices that created certain difficulties for individuals wishing to apply for aid or that delayed initial payments for those found eligible. Many of these practices resulted from insufficiency of funds, and some have been eliminated with more liberal Federal financing.

In June 1947, more than 4 million persons in the United States were receiving public assistance, 3.3 million of them through the programs under the Social Security Act. From June 1946 to June 1947 the number of families given aid to dependent children rose 27 percent, and the number of children, 26 percent. The number of cases on the general assistance rolls went up 20 percent. In old-age assistance the increase in recipients was 8 percent, and in aid to the blind, 7 percent.

A minor part of the increase in the old-age assistance rolls may be attributed to changes in administrative practices affecting the count of recipients, rather than to actual increases in the number of eligible individuals benefiting from assistance. Before the amendments, some States—chiefly in the South—customarily made joint payments of old-age assistance to husbands and wives when each was eligible for aid, counting only one as a recipient. Because the amendments make the number of recipients a factor in determining the Federal share of expenditures for old-age assistance, individual instead of joint payments are now generally made. Although this change in practice has relatively little effect on the count of recipients in the country as a whole, it affects the counts in some States appreciably.

Because case loads have been rising steadily, States have been unable to use all the additional Federal funds they received to raise the payments of persons already on the rolls when the amendments became effective. Nevertheless individual payments in the Nation increased by relatively sizable amounts. The average payment of old-age assistance was $3.89 higher in June 1947 than in the preceding September. Payments of aid to the blind under State-Federal programs averaged $4.23 more than in September. The increase in payments of aid to dependent children was $6.26 per family and $2.59 per child. Although general assistance is financed entirely from State and local funds, the average payment under this program rose $4.50 per case, or less than half that much per individual.

Before the States could take full advantage of increased Federal financial participation, many of them found it necessary to make changes in their State plans. This was accomplished by administrative action, attorney generals' rulings, and in some instances by amendment of the State law. In practically all States some procedural changes were required. To modify State policies and standards and to put them into operation in the localities necessarily take considerable time. The full effect of the amendments on expenditures cannot therefore be determined until data for a longer period are available.

Expenditures from State and local funds for the three special types of public assistance combined were $7 million greater in the January–March quarter than in July–September 1946, the last quarter under the former provisions for determining the Federal share of assistance costs. In January–March, expenditures from State and local funds for old-age assistance were $1.4 million higher, and those for aid to dependent children $5.4 million higher, than in the earlier quarter. State and local expenditures for aid to the blind remained substantially unchanged. In the early stages of operation under the amendments, many States withdrew some State and local funds, and several States transferred some State and local funds from old-age assistance and aid to the blind to aid to dependent children, where the need was more acute. In very few States has there been any significant decline in State and local effort to finance public assistance programs.

Recipients and Their Payments

Old-age assistance.—More than 2¼ million persons in the country as a whole, or 214 per 1,000 population aged 65 and over, were receiving old-age assistance in June 1947. In Oklahoma the rate was 574 per 1,000, and in Colorado, Georgia, and Texas the rates were more than 400 per 1,000; on the other hand, in Connecticut, Delaware, the District of Columbia, Maryland, New Jersey, New York, and Virginia, fewer than 100 persons per 1,000 were on the rolls.

Many factors account for the variations among the States in the proportions of their aged populations receiving old-age assistance. One factor is the difference in the relative protection afforded old people under the program of old-age and survivors insurance. In June 1947, aged persons receiving benefits under old-age and survivors insurance outnumbered recipients of old-age assistance in 10 States—Connecticut, Delaware, the District of Columbia, Hawaii, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, and Rhode Island. On the other hand, in 29 States, most of which are predominantly agricultural, the number of aged beneficiaries of old-age and survivors insurance was less than half the number of recipients of old-age assistance.

Part of the rise in the number of aged recipients in the past year was due to more frequent supplementation of social insurance benefits. An assistance payment may be increased to meet higher living costs, but an insurance benefit once determined usually remains at the same amount for the period of benefit eligibility. As a result of the upward revision in assistance standards that took place in most States when more Federal funds became available, some additional persons receiving inadequate insurance benefits became eligible also for assistance.

In June 1947 the average monthly payment of old-age assistance was $36.04 in the country as a whole. In California, Colorado, Massachusetts, and Washington it exceeded $50. In 9 Southern States, however—Alabama, Arkansas, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, Virginia, and West Virginia—the average remained under $20.

In many of the Southern States, recipients of old-age assistance have benefited from the amendments somewhat more than is apparent. As a result of the change in practice already described, from a single payment to separate payments to a husband and a wife when both are eligible for assistance, the average payments are somewhat lower than they would have been had the practice of making joint payments continued. With the discontinuance of such payments, however, average payments per recipient are on a more nearly comparable basis, State by State.

From September 1946 to June 1947, average payments rose in every State except Alabama, Alaska, Washington, and West Virginia. In 17 States the increase was $5 or more. In Colorado the average payment increased nearly $24, but only a small portion of this rise may be attributed to the availability of additional Federal funds. Under the Colorado law, State funds for financing old-age assistance are derived from earmarked taxes which must be expended in the year in which they are raised. Formerly, unexpended funds at the end of the year were distributed among recipients in the form of a bonus. Now the State is administering its funds in such a way as to avoid the accumulation of large surpluses at the end of the year.

In April 1947, some payments in 31 States exceeded $45, the maximum amount subject to Federal participation. Of all individual payments in the Nation, 8 percent were at the Federal maximum and 22 percent were for larger amounts.

Aid to dependent children.—More than a million children in nearly 400,000 families were receiving aid to dependent children in the United States in June 1947. The children on the rolls comprised 23 per 1,000 of the total population under 18 years of age. In Oklahoma the rate was nearly four times, and in Missouri and New Mexico approximately twice, the national rate. On the other hand, in Delaware and New Jersey, both highly industrial States, the rates were less than half that for the United States.

In June 1947 the number of children receiving benefits under old-age and survivors insurance exceeded the number receiving aid to dependent children under State-Federal programs in California, Delaware, New Jersey, and Ohio. In contrast, in 24 States the number of child beneficiaries was less than half the number of recipients of aid to dependent children. These data understate the extent to which the insurance program is replacing the assistance program as a major resource for survivor children since fewer than half the children receiving aid to dependent children are orphans. Variations from State to State in the concentration of industrial and commercial workers and hence in the number of children protected under the insurance program account in part for State differences in the proportion of the child population receiving aid to dependent children.

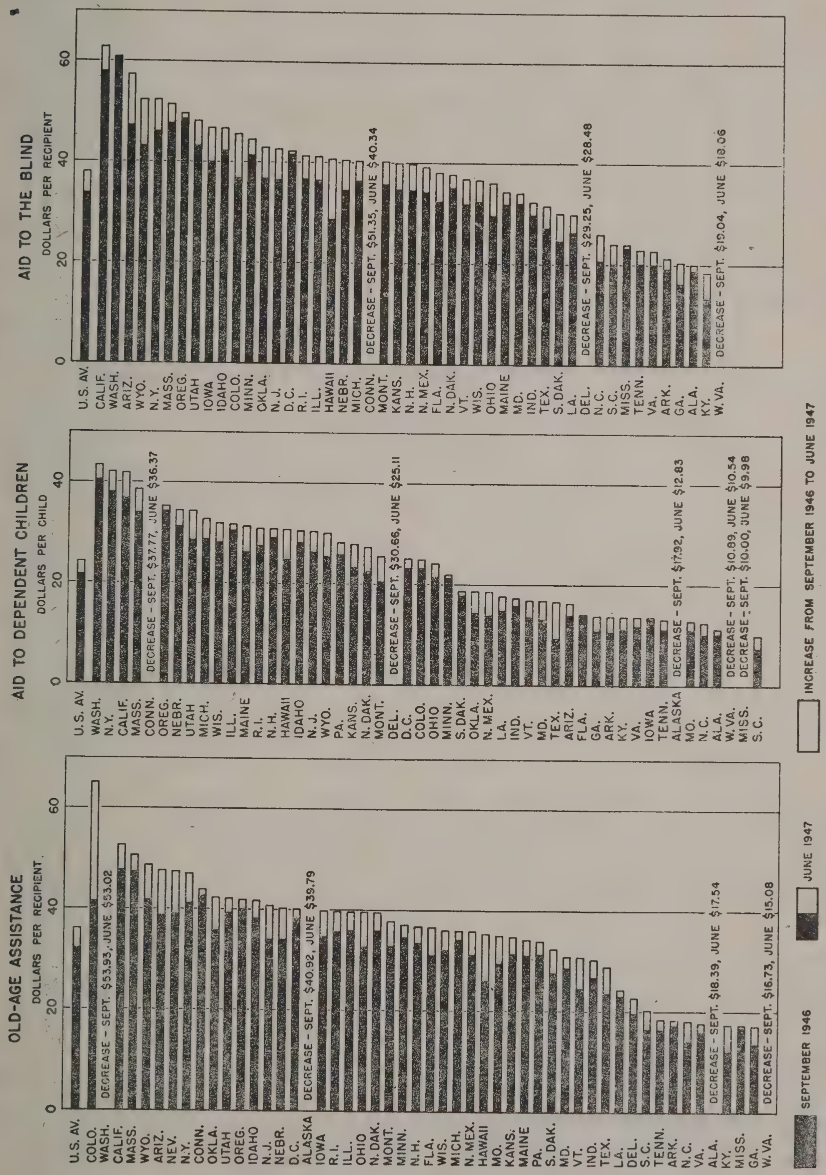


CHART 11.—*Average payments under old-age assistance, aid to dependent children, and aid to the blind, September 1946 and June 1947, by State*

On the other hand, it should be pointed out that the insurance benefits, in the absence of other income, are insufficient to meet minimum needs of child beneficiaries. The increased cost of living since the war's end has made it necessary for a growing number of beneficiary families to apply for supplementary assistance under the aid to dependent children program.

Assistance for dependent children in the country as a whole averaged $61.68 per family in June 1947. In 2 States with high per capita incomes—California and Washington—the average monthly payment per family was $100 or more. In 5 additional States, payments averaged from $90 to $99 per family. In sharp contrast, Mississippi, South Carolina, and West Virginia made payments averaging less than $30 per family, and 11 States had average payments of $30 to $39.

Since the number of children aided per family varies from State to State, average payments per family are not strictly comparable. In June 1947 the number of children assisted per family was 2.6 in the Nation and ranged from 3.0 in the District of Columbia and Hawaii to 2.3 in New York. The average amount of assistance per child reflects more satisfactorily the differences among States in levels of payments.

In June 1947 the average monthly amount of assistance per child was $24.21 in the Nation. State averages ranged from about $43 to a little less than $10. In 18 States the average payment was $30 or more; in 14 States it was under $15.

In all but 5 States—Alaska, Connecticut, Delaware, Mississippi, and West Virginia—the average payment per child was higher in June than in the preceding September. The rise was $3–4 in 6 States, $4–5 in 9 States, and $5 or more in 5 States. The largest increase—more than $7 per child—occurred in Texas. On the other hand, Delaware's dependent children were getting, on the average, almost $6 less in June than before the additional Federal funds became available, despite the acute rise in living costs in the intervening months.

Because the maximums limiting Federal participation are so low, 35 States made some payments in April 1947 in larger amounts. Of all payments in the country as a whole, 15 percent were at the Federal maximums and 49 percent were higher. These proportions are far higher than those in old-age assistance and aid to the blind. Payments at the amount of the maximums may be interpreted as representing for the most part assistance frozen at less than the amount of need as determined by the assistance agency.

Aid to the blind.—In the 47 States operating programs for the needy blind under the Social Security Act, 62,100 persons were receiving aid to the blind in June 1947. In Missouri, Nevada, and Pennsylvania an additional 17,100 persons were getting blind pensions from

State funds only. In States receiving Federal grants for aid to the blind, 30 persons out of every 100 of the estimated blind population were receiving aid to the blind. The rates were less than 10 per 100 in Connecticut, and more than 50 per 100 in Arizona, California, Florida, and Oklahoma. In part, differences among the States in the number of recipients of aid to the blind in relation to the estimated number of blind persons stem from differences in State practices in assisting aged blind persons. In some States, old-age assistance is furnished blind persons 65 years of age and over in preference to aid to the blind.

The average payment of aid to the blind in States operating programs under the act was $37.87 in June 1947. Monthly payments averaged $45 or more in 11 States. In California and Washington, average payments topped $60. On the other hand, needy blind persons averaged $20 or less a month in Alabama, Kentucky, and West Virginia.

The average payment rose $5 or more from September to June in 17 States. In Connecticut, Delaware, and West Virginia the average dropped in this period, even though the proportion of expenditures from Federal funds increased.

In 26 States, some payments in April 1947 exceeded $45, the maximum amount in which the Federal Government will share. Of all payments in States getting Federal funds, 9 percent were at $45 and 22 percent above $45.

General assistance.—In June 1947 the number of general assistance cases totaled 335,000, an increase of 20 percent from the preceding June and the highest number since June 1943. The number of persons represented in these cases was approximately 700,000, or 547 per 100,000 total population in the country. In 44 States supplying information on the number of persons as well as families aided, the number of persons receiving general assistance ranged from 923 to only 35 per 100,000. Ten States had rates less than one-half the national rate.

Monthly payments to cases in June averaged $39.18 for all States. New York led the Nation with an average payment of $65.55. In 11 additional States, payments averaged $40 or more. Yet Mississippi's average payment was only $10, and 7 other States had averages below $20.

Even though no Federal funds are available for general assistance, an increase in payments to recipients occurred in general assistance as well as in the categorical assistance programs. From September to June the average amount of assistance per case in the country as a whole increased $4.50. Increases occurred in all but 5 States. In 5 States the increases amounted to $5–9 per case, and in 1 State—New York—the increase was more than $10.

Civilian war assistance.—In 1946–47, under the program of civilian war assistance, financial aid and other welfare services—financed from Federal funds—were supplied by State public assistance agencies, acting as agents of the Federal Security Agency, to repatriates returning to the United States from European and Asiatic countries and to a few evacuees returning to the Philippines.

Major activity this year centered at port cities on the Atlantic coast, as more and more persons were returned from Europe by the Department of State. Repatriates were met at the pier and supplied with such immediate help as they needed to reach final destinations.

Since many of the repatriates had for several years lacked proper food, shelter, clothing, and medical and dental care, and had been stripped by the war of family, home, and possessions, some of them required additional help. In June 1947, financial assistance amounting to $109,800 was given to 904 cases. In addition, service other than material aid was given to repatriates in 531 other cases to help them in their adjustment to life in this country.

Financing Public Assistance

Expenditures in the United States for old-age assistance, aid to dependent children, aid to the blind, and general assistance, including both assistance payments and administration, exceeded $1.4 billion in 1946–47. Of this amount, $1.3 billion was for the three special types of assistance under the Social Security Act, and $168 million was for general assistance.

In the 1947 fiscal year the Federal share of expenditures for assistance payments in all States receiving Federal grants was 52 percent in old-age assistance, 50 percent in aid to the blind, and only 38 percent in aid to dependent children. In the 1946 fiscal year the Federal Government bore a smaller share of the cost in all three programs—47 percent in old-age assistance, 45 percent in aid to the blind, and 32 percent in aid to dependent children. The 1946 amendments to the Social Security Act governing the extent of Federal participation in assistance costs were in effect during 3 of the 4 quarters of the 1947 fiscal year and account for the larger Federal share in this year.

Under current provisions for Federal participation in assistance costs, the maximum Federal share in all programs is two-thirds. This is possible, however, only if payments are extremely low. The proportionate Federal share drops as payments increase. In 1946–47 the Federal share was 60 percent or more of expenditures for old-age assistance in 9 States, of aid to the blind in 2 States, and aid to dependent children in 3 States. On the other hand, the Federal contribution was less than 45 percent of expenditures for old-age assistance and aid to the blind in 2 and 7 States, respectively. In aid to dependent children the Federal share was less than 45 percent in 27 States and under 30 percent in 7 States.

In all three assistance programs the Federal share of expenditures for the proper and efficient administration of State plans is now one-half. Before the 1946 amendments it was one-half in aid to dependent children and aid to the blind. In old-age assistance, however, the Federal Government contributed an amount equal to 5 percent of the Federal grant for assistance which could be used for administration or assistance or both. The 5-percent addendum sometimes represented less than half of the State's administrative costs and sometimes more than half. In the fiscal year 1947 the Federal share of administrative costs for old-age assistance was higher than in the previous year in 42 States. In 9 States in which the 5-percent addendum had earlier amounted to more than one-half of administrative costs, the Federal share declined. The uniform basis for determining the Federal share of expenditures for administration has made possible administrative simplifications in State procedures for claiming Federal funds.

The Social Security Administration certified grants of $614 million during the fiscal year for approved State public assistance plans. Of this amount, 80 percent was for old-age assistance, 18 percent for aid to dependent children, and 2 percent for aid to the blind. The grants included the Federal share of assistance payments and of administration.

Civilian war assistance payments amounting to $1,280,000 were made by the State agencies during the fiscal year from funds advanced or reimbursed by the Social Security Administration.

Other Administrative Developments

Consultation and technical services to States.—In addition to assisting the State agencies in their implementation of the 1946 amendments to the Social Security Act and providing continuing service to the agencies on administrative matters, the regional and departmental staffs of the Bureau of Public Assistance, on request, supplied specialized consultation on many aspects of administration. During the year the Bureau issued additional technical materials which could be adapted to particular State situations and problems. Some illustrations of the types of consultation and technical services supplied follow.

Many States sought advice on proposals for amendments to State legislation. To serve as a guide, the Bureau issued a statement on Public Assistance Goals—1947, presenting recommendations for improving State public assistance legislation. The Bureau reviewed a large number of pending bills from the point of view of the effectiveness of their provisions as well as their conformity to the Social Security Act. Consultation also was given on plans to carry out amendments to State laws.

To assist the State agencies in improving the competence of staff, consultation was given on the objectives, content, and methods of staff development, and materials on staff development were issued, including a series dealing with State training activities. State public assistance agencies are progressively developing training programs to promote more efficient administration and to improve the quality of service to needy people.

Advice was given to State agencies on ways of improving procedures for informing applicants and recipients of their right to a hearing and for conducting hearings in such a manner as to protect fully the right to assistance. The Bureau inaugurated a quarterly series of annotated, selected decisions of State public assistance agencies to illustrate the use of hearings as an administrative method for enabling the client to exercise his right to assistance when other methods appear to have failed, for affording him protection against mistaken action in the local agency, or for helping him understand why the action was equitable.

Consultation was provided on various methods of making medical care available to recipients of assistance, either through the provision by the agency of medical services or supplies, or through the money payment.

State agencies sought advice on methods of administration that would fully establish and maintain the money-payment provision of the act, which is designed to make it possible for recipients to carry on activities through the normal channels of exchange and to enjoy the same rights and discharge the same responsibilities as other members of the community.

Public assistance agencies were particularly active during the year in establishing objective standards for determining who is needy and the amounts of assistance to be granted. In many States, figures for measuring the cost of what needy individuals require to obtain the essentials of living were revised to adjust to rising living costs. Consultant service was supplied many State agencies in response to their requests for help in carrying out such changes.

In the development of their programs of statistics and research, States were given consultation on the scope and content of statistical reports and special studies, procedures for obtaining accurate data, and methods of analysis and presentation of results.

Termination of emergency services.—Effective October 1, 1946, the Bureau of Public Assistance terminated its responsibilities in the surplus property utilization program. The services that the Bureau had been providing to nonprofit welfare institutions in the acquisition of surplus property became the responsibility of the War Assets Administration.

The Selective Service System discontinued as of November 1 its arrangement for paying State public welfare agencies for the essential costs of collecting medical and social information about Selective Service registrants. Federal funds for this purpose had been made available by the Social Security Administration to State agencies under an arrangement with the Selective Service System.

Services for the visually handicapped.—Because of its responsibility for administering grants for aid to needy aged and blind persons and dependent children, the Bureau of Public Assistance has great interest in services that are related to the needs of these groups. During the past year the Bureau has given special attention to services for blind persons and to measures for preventing blindness. Completion during the year of a study of the causes of blindness of some 20,600 recipients of aid to the blind has intensified the Bureau's concern with the special needs of persons who are blind or threatened with serious visual loss. To consider what services are appropriately a part of the expense of administering aid to the blind and to explore the possibility of closer coöperation of various governmental and private agencies administering services for the visually handicapped, the Bureau held a conference in May 1947 of representatives of such agencies. The conference not only focused attention on opportunities for fuller use of existing resources for helping visually handicapped persons but also led to constructive suggestions for ways of extending and improving such resources.

International activities.—During the past year a substantial number of persons, including officials of foreign governments, fellows under UNRRA and other auspices, and technical personnel from other countries have visited the Bureau to learn about public welfare in the United States. Increasingly the Bureau and its staff have been asked for consultation and materials relating to social problems of international importance.

During the absence from this country of the Commissioner for Social Security, the Director of the Bureau served as Chairman of the Social Welfare Subcommittee of the Interdepartmental Committee on International Social Policy of the Department of State. As the representative of the Federal Security Agency, the Director also attended the World Congress on Family and Population held in Paris in June 1947.

Improving Public Welfare

The 1946 amendments have greatly helped States in assisting their needy aged and blind individuals and dependent children on a more nearly adequate basis. The Social Security Administration believes, however, that the temporary provisions for determining the Federal share of assistance costs should not become permanent legislation. Instead, we advocate other changes that would enable States to make assistance, including both money payments and medical care, available with Federal help to any needy person and that would authorize Federal participation in State expenditures for comprehensive welfare services for families, adults, and children without regard to economic status. We are also convinced, moreover, that the Federal contribution in States with relatively small economic resources should represent an even larger share of the cost than at present, to assist these States to provide more satisfactorily for their needy persons.

The fact that Federal expenditures other than those for work programs have been limited during the past 12 years to funds for cash assistance and its administration for three categories of needy persons, and to child welfare services, has caused a lag in many States in the development of other public welfare functions. States tend to spend State dollars in such a way as to attract Federal dollars. General assistance, medical services to needy persons, and welfare services for families and adults have in many places been neglected while the special types of public assistance and child welfare services were being strengthened. Federal participation in all types of assistance and in general welfare services on a uniform basis would result in better-balanced and more comprehensive public welfare systems than now prevail. In the attempt to get maximum Federal funds, many States make numerous compromises with what they deem to be the best plan for a balanced and comprehensive State system of welfare programs. Now that the special types of public assistance and child welfare services are so firmly established, efforts should be made to extend Federal aid to programs for other groups acutely needing assistance or service.

The orderly and sound development of public welfare programs will undoubtedly be hampered in some States by the temporary nature of the provisions of the 1946 amendments. Some State legislatures may hesitate to make substantial changes in their State laws because they are uncertain about the Federal financial contribution after the amendments have expired and prefer to wait for more permanent Federal commitment. When sufficient time has elapsed so that the temporary provisions can be effectively appraised, the Social Security Administration believes that permanent provisions for determining the scope of Federal financial help should be enacted. Both in 1946 and 1947 the Senate Finance Committee was authorized by resolution to make a full and complete study of social security, although such a study had not been undertaken by the end of the 1947 fiscal year. Exploration under Senate auspices of the problems of public assistance would supply a basis for the enactment of permanent legislation.

Financing Public Welfare

As a basis for sound financing of more nearly comprehensive and satisfactory public welfare programs, the Social Security Administration recommends special Federal aid to low-income States for assistance, administration, and services. We also recommend elimination of or increases in the maximums that limit the amounts of individual monthly payments in which the Federal Government will share. In addition, we believe that States should distribute Federal and State funds to localities in accordance with their need for funds. These three provisions, which are closely interrelated, are necessary to assure reasonably adequate provision for individuals needing financial assistance or other help, in whatever part of the country they may live.

Special Federal aid to low-income States.—Under the present temporary provisions, the Federal share of assistance costs is not fixed but varies with the level of payments. If a State makes no payments in excess of the Federal matching maximums, the Federal share may vary from somewhat more than one-half to as much as two-thirds, depending on the size of the State's average payments. In general, the lower the average payment, the higher the relative Federal share. The Federal Government will put up $2 for $1 of State funds if the average payment is no higher than $15 in old-age assistance or aid to the blind or $9 per child in aid to dependent children. The smaller Federal share beyond these levels may discourage States with low economic resources from making high average payments.

The present method of determining the Federal share of assistance costs has not thus far had the effect of raising levels of payments substantially in many low-income States. In June 1947, payments averaged less than $25 for old-age assistance in 12 States and for aid to the blind in 9 States. Payments to families receiving aid to dependent children averaged less than $40 in 14 States. The additional Federal funds in some places have gone primarily into expanding the case loads. On the other hand, in some of the highest-income States, average payments, which at the time of the amendments were already relatively high, have increased by substantial amounts.

The Social Security Administration continues to believe that Federal funds should be granted on a basis that considers the relative financial resources of the States. Though many methods have been proposed for achieving this objective, the Administration favors a formula that will pay one-half the costs in States with per capita income equal to or above the national per capita income, varying the Federal share for States with per capita income below that amount from somewhat more than one-half to a maximum of perhaps three-fourths in the lowest-income States.

A formula such as that proposed probably would not result in a reduction in the amount of Federal funds that States with comparatively large resources would receive if other proposals for amendment of the act were also enacted—namely, increase in or elimination of the Federal matching maximums on individual payments, extension of coverage to any needy person, and authorization of Federal participation in the cost of medical services and of welfare services for families and adults as well as for children.

Only by some such device as special Federal aid to low-income States sufficient in amount to compensate for their economic disadvantage will it be possible to narrow significantly the great disparities among States in levels of assistance. In June 1947 the highest State average payment was three and one-half times the lowest in old-age assistance and aid to the blind and four times the lowest in aid to dependent children. The amendments have failed to bring about a satisfactory degree of equalization among States in their ability to finance assistance. Furthermore, the present temporary method of determining the Federal share of assistance costs cannot be satisfactorily adapted to either administrative expense or welfare services.

Federal matching maximums for individual payments.—In raising temporarily the maximums limiting the amounts of individual monthly payments subject to Federal sharing, Congress sought to enable States to revise payments upward. Throughout the war years, though living costs mounted the Federal maximums remained fixed. In many States the increased Federal participation merely compensated for increases in payments that had already been forced by previous price rises. Since the new maximums became effective, prices have also risen sharply. Thus the new maximums already have almost as restrictive an influence on assistance payments as those formerly in effect. In April 1947 the proportion of payments at or above the matching maximums was 29 percent in old-age assistance, 31 percent in aid to the blind, and 64 percent in aid to dependent children, as against 33, 37, and 71 percent in September 1946, the last month before the present maximums became effective.

In aid to dependent children, the new maximums of $24 for one dependent child and $15 for each additional child in a family are particularly inadequate and contrast markedly with the $45 maximum in old-age assistance and aid to the blind. Though the Federal Government will contribute as much as $25 to a monthly payment for an aged or blind individual, and $50 for two such persons in a family, it will contribute at most only $13.50 to a monthly payment for one dependent child and only $22.50 for two such children living with a parent or other relative. Because of the utter inadequacy of the Federal matching maximums in aid to dependent children, in April 1947 all but 15 States were making some payments for more than these amounts; 10 had higher maximums or permitted higher payments to be made occasionally to exceptionally needy families. No maximums were set in 25 States.

In 4 States that limit payments to the amounts of the matching maximums and meet need as determined by the State in full up to these maximums, 98, 95, 77, and 71 percent, respectively, of all payments in April 1947 were at the maximums. The average payment per family in these States was $46, in contrast to an average payment of $84 in the 25 States that meet need in full and do not limit payments to prescribed maximums.

To enable them to make payments equal to the amounts found to be needed, 13 States have no maximums on payments of old-age assistance and 13 States, on payments of aid to the blind. In addition, several States with maximums waive them for persons requiring medical care.

The Social Security Administration strongly urges the removal of maximums for aid to dependent children. If Congress should wish to retain maximums for this type of aid, however, we believe that the maximums should be so established as to enable States to provide adequately not only for the children but also for the parents or other relative caring for the children, and for the expenses of maintaining the home. In old-age assistance and aid to the blind, the maximums should be eliminated or raised so that the payments to aged and to blind persons may be reasonably related to the cost of what the State has determined as the essentials of living.

State distribution of Federal and State funds.—As has already been pointed out, the Administration believes that it is the intent of the Social Security Act that needy persons within a State shall receive equitable treatment. This is implicit in the requirements in the Social Security Act that a State plan be developed and that the State plan provide for State financial participation in the program, operation of the program under the plan in all localities of the State, opportunity for a fair hearing before the State for any individual whose claim for assistance is denied, and administration that is proper and efficient.

The goal of equitable treatment can be achieved only if in all localities there is freedom to apply for assistance, prompt disposition of applications, and determination of eligibility and of the amount of assistance needed on the basis of objective, State-wide standards, uniformly interpreted. In the last analysis, however, the ability of a locality to give applicants and recipients the same treatment they would receive in similar circumstances anywhere else in the State depends upon the availability in all localities of sufficient funds to implement the State-wide standards.

Although problems in the distribution of funds occur in State-financed programs, the equitable apportionment of Federal and State funds presents particularly difficult problems in States in which the localities help to finance public assistance. In States with local financing, the localities commonly bear a fixed, uniform percentage of the non-Federal share of their assistance costs, even though they vary greatly in their fiscal ability. Often the amount the State and Federal Government can contribute in a locality depends upon the ability and willingness of the locality to raise funds. To assure equitable treatment of needy persons wherever they may live in the State, the Social Security Administration believes that, as a condition of approval, a State plan should provide for the apportionment of Federal and State funds in relation to the need of the localities for funds, rather than on the basis of what they contribute.

Assistance for Any Needy Person

To enable the States to provide for all their needy persons and not merely those with certain handicaps, extension and improvement of the provisions of the Social Security Act relating to eligibility are essential. Among necessary changes are authorization of Federal participation in general assistance and elimination of provisions in Federal and State legislation that bar some needy aged or blind persons or dependent children from getting help.

Federal funds for general assistance.—A serious gap in the public assistance program results from the limitation of Federal participation to assistance for needy aged and blind persons and dependent children only. States and localities have attempted, with varying degrees of success, to provide aid to needy persons who do not fall within these groups. Although some States with relatively large financial resources are able to finance adequate programs of general assistance, many States and a great many localities have such meager funds for general assistance that needy persons applying for aid can get only the barest necessities, and sometimes not even that much.

Since employment has continued to be at high levels, the great majority of persons on the general assistance rolls are people with handicaps not unlike those arising from old age, blindness, or lack of parental support or care. Among the causes of their want are physical and mental handicaps, temporary and chronic illness, and unsuitability for work because of age or home responsibilities. This year, however, an increasing number of persons receiving general assistance have been temporarily unemployed. Many other persons of marginal employability, who managed to do some work during the war years, can no longer be considered a part of the labor force now that servicemen and war workers have returned to peacetime pursuits. If the Nation experiences even a mild slump, meeting the demands for general assistance will place a heavy burden on the States and localities. Unemployment insurance does not protect workers in noncovered occupations and is of limited duration for those who have benefit rights. Furthermore, except for railroad workers, insured persons who are temporarily disabled and unable to work are eligible for sickness benefits in only two States, and in only a few States can they continue to draw unemployment benefits, in special circumstances.

The Social Security Administration strongly urges that Federal grants be authorized for general assistance as well as for the three special types of public assistance. Only if this gap is bridged will the Nation have a strong and flexible public assistance system able to meet changing demands. To the extent that high levels of employment, social insurance, GI benefits, and other measures prevent need, the task of public assistance will be lightened. It is in the public interest, however, that the necessities of life be available to all persons who cannot be self-supporting and for whom other provision is lacking. Without Federal funds for general assistance, many people will inevitably live below a level that anyone could consider acceptable. Even in the prosperous war years, sheer want existed in all sections of the country among some persons who were not protected by social legislation.

Definition of a dependent child.—Children are a Nation's greatest resource. Yet in this country many children suffering serious deprivations have no means of obtaining the essentials for healthful growth and development. The Social Security Act limits the program of aid to dependent children to children who lack parental support or care for certain specified reasons. If a child is to be eligible for help with Federal funds, one of his parents must be dead, continuously away from home, or incapacitated. Furthermore, the child must be living with either a parent or some other specified relative. If 16 or 17 years of age, the child must be regularly attending school.

The Social Security Administration believes that assistance with Federal help should be available to a parent, relative, or other person who assumes responsibility for the care and support of a needy child and who maintains a home for such child, and that the payment should be made regardless of the cause of the child's need. Some needy children could receive care and support in a family home but have no relative, as specified in the act, who could assume such responsibility. Some children who are aged 16 or 17 are too ill or handicapped to go to school or are living in places where suitable schools are lacking. Moreover, many children are in want for reasons other than those in the act, such as the unemployment, low earnings, or temporary disability of a parent.

If Congress should authorize grants-in-aid for general assistance, broadening of the definition of a dependent child would be far less important, but it would still be desirable since it would greatly simplify the determination of eligibility.

Residence requirements.—The Social Security Act now provides that a State plan for old-age assistance or aid to the blind may not require residence in a State for more than 5 of the 9 years immediately preceding application and 1 year continuously before filing the application. For aid to dependent children, the maximum requirement is 1 year of residence for the child immediately preceding application or, if the child is less than a year old, birth in the State and continuous residence by the mother in the State for 1 year preceding the birth. Many States have adopted substantially these provisions as their minimum requirements. In general assistance, States often require not only a specified period of residence in the State but also local settlement.

Several States have eliminated residence requirements from their laws and are getting Federal participation in assistance to needy persons who have lived a relatively short time in the State. Many additional States have reduced their requirements of residence below the maximum permitted under the Federal act.

In our free-enterprise society, mobility of population is essential. During the war years, in fact, it was promoted as a matter of national policy to effect a satisfactory distribution of the labor supply. Individuals must be free to move about to take advantage of opportunities for self-support and better living conditions. Inevitably some persons who move will become needy. They should not lose their right to help if after crossing State lines they find themselves in want. Believing that residence requirements as a condition of eligibility work great hardships on needy persons who cannot meet them and that they are an anachronism in our modern society, the Administration advocates the abolition of residence requirements under State plans approved under the Social Security Act.

Citizenship requirements.—The Social Security Act permits a State to require citizenship as a condition of eligibility for public assistance, although the State may, if it wishes, use Federal funds to help pay the cost of assistance to noncitizens. Only one State now requires citizenship as a condition of eligibility for aid to dependent children, but it is required for recipients of old-age assistance in 24 States and of aid to the blind in 6 States. It is the opinion of the Social Security Administration that assistance should be available to noncitizens who are needy and otherwise eligible for help, and that the Social Security Act should prohibit a State from including citizenship as a condition of eligibility for assistance in its State plan. The States as well as the noncitizens would benefit from this change, since those who are needy must be cared for through general assistance, which is financed wholly by the States and localities. Often such aid is meager in comparison with categorical assistance.

Property restrictions.—Although the assistance payment is given to the recipient with no restrictions on the way he uses the money, many States as a condition of eligibility for assistance now require a recipient to transfer title or control of property he owns to the State or locality. It is anomalous to treat the assistance payment in one way and the recipient's other property in a different way. The assistance agency could claim recovery from the estate of a deceased recipient for assistance granted without requiring him to surrender title or control of property during his lifetime. The Social Security Administration believes that claims for recovery should not be enforced during the lifetime of a recipient or surviving spouse or during the minority of surviving children. We also believe that, as a condition of plan approval, States should be prohibited from requiring an individual to transfer title or control of his property before he can receive aid.

Scope of Assistance and Service

Twelve years of experience in the administration of grants for public assistance have demonstrated the importance of broadening the scope of Federal participation in public welfare programs to include medical care as well as cash assistance and to provide family and adult welfare services in addition to expanded child welfare services.

Medical care.—A study of the medical aspects of public assistance now being made by 21 States cooperating with the Bureau of Public Assistance supplies abundant evidence of the difficulties encountered by public assistance agencies in attempting to meet the medical needs of recipients under present legislation. Federal help in providing medical care is possible only when an amount for such care is included in the money payment to the recipient. Within the maximums limiting Federal participation in individual monthly payments, it is often impossible to include amounts large enough to enable recipients to pay medical bills. Moreover, agencies often find it desirable, particularly when sizable expenditures are involved, to pay the doctor, dentist, nurse, druggist, hospital, or clinic directly for the services supplied.

In the States with relatively large resources, substantial effort is generally being made to furnish essential medical services to needy persons. Such services are financed primarily from State and local funds, except when it is possible to include the amounts in the money payment so that Federal funds may meet a share of the cost. In States with relatively small resources, attempts to provide for the medical needs of recipients are often sporadic. Such States cannot always provide adequately for even such basic essentials as food and shelter.

To enable States to make medical care available to needy persons by whichever method seems the more suitable, the Social Security Administration believes that, in addition to removing maximum limits on Federal participation in the money payment so that an amount large enough to purchase needed medical care may be included, Federal participation should be extended to payments made directly to individuals and agencies furnishing medical services and supplies to assistance recipients.

Some of the most difficult problems with which public assistance agencies must cope arise in connection with the provision of medical care to needy persons in medical institutions. At present the Federal Government participates in money payments to such persons only if they reside in private institutions, and cannot share in payments to persons in public institutions unless they need only temporary medical care or other special services, such as vocational education.

In order that needy persons requiring long-time care may be cared for more satisfactorily, we recommend that the Federal Government share not only in money payments to needy persons in private institutions but also in payments to or for such persons who elect to live in public medical institutions other than those for mental disease and tuberculosis.

Federal assumption of a share of the cost of care of persons in public or private medical institutions should properly be subject to a requirement that an appropriate State authority be responsible for the licensing and inspection of medical institutions to assure their operation in accordance with standards established by the State. Such a requirement would be desirable also for States making money payments to persons living in private domiciliary institutions.

Elsewhere in this report the Administration recommends establishment of medical care insurance to meet costs of medical care of workers and members of their families. The sharing of risks and the prepayment of costs on a fixed basis would enable people who are ordinarily self-supporting to meet their bills for medical care. If a system of medical care insurance is established, it should be possible for assistance agencies to pay contributions to the insurance fund for needy persons so that they, too, could get medical services of high quality in the same manner as other persons in the community. Medical care insurance would, of course, greatly reduce the need for medical assistance and doubtless also for maintenance.

Determination of need.—The Social Security Administration believes that States should define the content and level of living to be afforded needy persons in given circumstances and should develop effective standards for determining their cost. Similarly, States should develop as definite standards as possible to measure the income and resources that are actually available to individuals to meet a part of their need. Dissatisfaction with the determination of need is the principal reason for the appeals for fair hearings filed by applicants and recipients throughout the country.

Fair and equitable determination of the eligibility of an individual for assistance and measurement of the amount of assistance that he needs are possible only when there are clear and objective standards, State-wide in application, for determining what he requires and how much his resources and other income should be supplemented so that he may meet his requirements.

In its continuing review of State administrative practices, the regional staff of the Bureau found that in September 1946 only 12 of 58 State public assistance agencies gave adequate instructions to the localities for the uniform inclusion of all items, such as food, clothing, and shelter, in determining the need of all individuals. In only 9 of these agencies were the instructions uniformly followed by local staff. In 19 State agencies the items to be considered in determining the extent of need were left to the local agencies; the State agencies provided no more than suggestions or recommendations as to what items should be included.

Similarly the administrative review revealed that in the majority of States there was by no means uniform consideration of the income and resources available to individuals to meet a part of their need. Seventeen State agencies, for example, did not define inconsequential income or resources, for which values cannot be presumed on any sound basis, and 24 failed to provide standards for appraising the value of all types of income in kind.

In 14 State agencies with funds insufficient to meet need in full up to the maximums, there was no uniformity in the method of reducing the amount of the payment in relation to the need as established.

Since September 1946, considerable progress has been made toward the development of State-wide standards for measuring the requirements of individuals and considering their income and resources.

Welfare services.—Increasingly the public welfare agency is becoming the place to which people turn when they need financial or other help. Since 1936, when Federal grants were first made to States under the Social Security Act, public welfare agencies have greatly improved the quality of their service to people applying for and receiving financial assistance; substantial progress has been made also in supplying services to children who are homeless, dependent, or neglected, or in danger of becoming delinquent.

Through the administrative grant for the special types of public assistance, the Federal Government participates in expenditures for services directly related to the need of persons applying for or receiving financial aid; some additional funds are available through Federal grants for child welfare services. Federal participation is lacking, however, in services for recipients of the special types of assistance who need help that financial assistance itself cannot supply, for persons who are needy but cannot qualify for a special type of aid, and for families and adults who are self-supporting but need help in handling problems. Child welfare services, moreover, are not yet generally available in all localities of States.

The Social Security Administration recommends the extension of Federal financial participation to include all welfare services administered by the staff of the public welfare agency to help people—whether needy or not—to become self-supporting, to make fuller use of community resources, or to solve individual problems in family or community adjustments. Expansion of child welfare services and the development of family and adult welfare services are needed to enable people to meet the demands of our highly complex and dynamic society. Ultimately, comprehensive welfare services should be available in all communities. Realization of this objective, however, is dependent not only on the availability of Federal financial help but also on the training of additional personnel properly equipped to help people deal with problems as they arise. Many States have made notable progress in developing agency programs for the improvement of staff competence in the performance of their work. Demonstration projects in selected areas should be established as an additional means of developing sound methods of providing various types of services.

Administrative Organization

Enactment of the proposals which have been advanced here, and which are widely supported by State and local public welfare officials, would furnish a firm basis for the development throughout the Nation of comprehensive and flexible programs of assistance and welfare services. If Federal grants are further extended, the Social Security Administration believes that it would be desirable to require that one State agency administer or supervise the administration of all the welfare programs to which the Federal Government contributes funds under the Social Security Act. In the localities, also, all welfare plans should preferably be administered by one local agency or one branch office of the State agency. This would assure coordination of the various services and promote equitable consideration of the needs of all persons in the State who are seeking help.

The Social Security Administration believes that, within the framework of administration through a single State and a single local public welfare agency, the States should be free to organize their programs of assistance and welfare services in any constructive manner. Some States, if they were given the choice, would prefer to administer one comprehensive assistance program, with need the only condition of eligibility. Other States might prefer to continue the present categories and possibly add others. If adequate financial support for assistance were assured, so that the special needs of recipients could be met and welfare services more generally provided to help persons in the solution of their special problems, administration of money payments through a series of categorical programs might seem less important.

Extension of Federal Aid to the Virgin Islands and Puerto Rico

Although the provisions of title V of the Social Security Act for grants to States for maternal and child welfare have been extended to the Virgin Islands and Puerto Rico, and although both now receive grants for public health services, they are not able to get Federal grants to help them finance public assistance. Both the Virgin Islands and Puerto Rico have enacted legislation and established plans of operation that would enable them to qualify promptly for Federal grants if the public assistance provisions of the act were amended to include them. Because poverty is acute and economic resources are small in the islands, they are in particular need of help. In the opinion of the Social Security Administration they should be able to share in all provisions of the Social Security Act relating to health and welfare.

CHILDREN'S BUREAU

Significant gains were made on a number of fronts in behalf of the Nation's 43 million children in the fiscal year 1946–47.

Federal grants to the States for maternal and child health and welfare services were almost doubled by action of Congress in August 1946, from $11.2 million to $22 million. State and local health and welfare agencies took immediate advantage of this enlarged support in expanding their programs to the limit of available personnel. A number of States initiated new types of health and medical care services for mothers and children, and more mothers and children were reached through existing health services. The number of children receiving child welfare services from State and local public welfare agencies also increased during the year.

More graduate training than in any previous year was provided for personnel in public child health and child welfare agencies. This will have beneficial effects on the quantity and quality of services that can be given by these agencies in the future.

Major headway was made in the national survey of child health facilities and services undertaken by the American Academy of Pediatrics. Results of this survey, in which the Children's Bureau is cooperating, will be important in planning expansion and improvement of child health programs.

The National Commission on Children and Youth, whose members come from a wide range of civic and professional organizations and public agencies with programs for children, held its first meeting and adopted an action program for 1947 and 1948.

National attention was focused on the problems of young people by the National Conference on Prevention and Control of Juvenile Delinquency, called by the Attorney General of the United States.

By the end of the fiscal year, 22 State commissions or councils on children and youth were at work on various aspects of child welfare and protection.

Developments of significance to children of other countries included the creation of the International Children's Emergency Fund, set up by the General Assembly of the United Nations as the channel through which contributions from governments and citizens can flow to the relief of children in war-stricken countries. Plans also went forward for the Ninth Pan American Child Congress, to be held in Caracas, Venezuela.

The International Council of Nurses held its first postwar meeting in May 1947, and the Fifth International Congress of Pediatrics was to meet in July. International gatherings such as these, that bring to the United States experienced workers in children's services from many countries, broaden the understanding and enrich the experiences of professional workers in this country.

Relations with public agencies in the children's field in Canada and the Latin-American Republics were strengthened by the exchange of professional personnel.

The pages that follow are a record of the service of the Children's Bureau during the fiscal year 1947 in investigating and reporting on the health and welfare of children, in administering maternal and child welfare grants to the States, and in serving professional workers and public agencies in child health and welfare in the American Republics.

After 33 years as a branch of the U. S. Department of Labor, the Children's Bureau became, on July 16, 1946, a unit of the Federal Security Agency. This transfer was effected by the President's Reorganization Plan No. 2 of 1946. By direction of the Administrator of the Federal Security Agency, the Bureau has been placed within the Social Security Administration.

Since the Children's Bureau, under the act creating it, is concerned with all aspects of child welfare and child life, the Bureau has always cultivated close contact with other branches of the Federal Government that are concerned with the health and welfare needs of the people. The reorganization and the closer physical contact that the Bureau has had during the year with the other units of the Federal Security Agency have multiplied the opportunities for exchange of ideas and experiences and for participation in joint planning.

The reorganization plan that transferred the Children's Bureau to the Federal Security Agency left in the Department of Labor the Bureau's Industrial Division and its functions relating to enforcement of the child-labor provisions of the Fair Labor Standards Act of 1938. In July 1946, the Industrial Division became the Child Labor and Youth Employment Branch of the Division of Labor Standards in that Department. At the end of the fiscal year 1947, reduced appropriations and reorganization within the Department of Labor resulted in sharp curtailment of the work carried on by this Branch. The Children's Bureau cannot fail to be concerned over the recession of services in the field of youth employment and the serious implications this has for the health and welfare of children and young people throughout the country.

Grant-in-Aid Programs, 1946–47

The three grant-in-aid programs for maternal and child welfare under the Social Security Act are substantial expressions of the principle that only through shared responsibility by Federal, State, and local governments can the Nation's children be assured of their right to a good start and a fair chance in life.

Title V of the Social Security Act authorizes Congress to make annual grants to the States to improve and extend their health and welfare services for mothers and children. Under the amendments of 1946 these grants are $11 million for maternal and child health services, $7.5 million for services for crippled children, and $3.5 million for child welfare services. These appropriations were made for the fiscal year 1947. All 48 States, the District of Columbia, Alaska, Hawaii, Puerto Rico, and the Virgin Islands are entitled to and receive grants for all three programs. The Virgin Islands were brought under coverage of the act, as of January 1, 1947. The 1946 amendments marked the second time that grants to the States under the Social Security Act had been increased. In 1935, when the act was originally passed, they totaled $8,150,000. That sum was stepped up to $11.2 million in 1939 and $22 million in 1946.

Unlike the insurance and public assistance programs under the Social Security Act, which are designed to strengthen a family's economic security by furnishing a basic minimum income when earnings are interrupted, the grant-in-aid programs administered by the Children's Bureau are intended to promote and improve the family's general welfare through providing public health and welfare services. None of the Federal money under these programs is paid directly to any parent or child. It goes to State agencies to strengthen, extend, and improve the work of these agencies and their counterparts in communities. Much of it is used to employ professionally trained people who work on behalf of children and parents.

To share in the Federal funds, each State must pay for part of its services for children out of its own or local resources. No State, of course, is limited in what it does for children to the amount required for matching or supplementing Federal funds. In fact, many States spend a great deal more for children's services than the amount they receive from the Federal Government.

In its concern for all children, Congress has given the States the widest opportunity to work out their plans for safeguarding the health and welfare of their children. Emphasis is to be given to strengthening services "in rural areas and in areas suffering from severe economic distress." No residence or family-income restrictions have been placed by Congress on the children who may be benefited by the services which get direct or indirect support from the Federal grants. State health and welfare agencies or other agencies responsible under State law for services to crippled children, working with corresponding community agencies, administer all services paid for in part or in whole from these Federal funds.

The Children's Bureau administers the grants to the States under authority delegated by the Federal Security Administrator and the Commissioner for Social Security. It is responsible for approving State plans for the use of the Federal money and for seeing that the requirements of the Social Security Act are met.

To develop standards of good service, to meet requests from States for advice in the development of their programs, and to work on the many problems involved in reaching children needing care, the headquarters staff of the Children's Bureau includes a wide range of professionally trained people—obstetricians, pediatricians, medical social workers, public health nurses, nutritionists; a psychiatrist and a psychologist; a dentist, a physical therapist, a hospital administration consultant; and social workers with special training and experience in child welfare service, public welfare administration, group work, and foster home and institutional care of children. In most of the Social Security Administration regions the Bureau has a team of regional workers responsible for giving consultant service to State agencies on their federally aided programs. These teams consist of a regional medical director, a nurse, a medical social worker, a nutritionist, an administrative methods consultant to advise on the health programs, and a child welfare worker to advise on the child welfare programs. All regions are not fully staffed with Children's Bureau representatives because of inadequate funds for this purpose. Advisory committees in various technical fields assist the Children's Bureau in developing policies relating to the administration of grants-in-aid.

Maternal and Child Health Services

Maternal and child health programs in all States are administered by State departments of health, through a division or bureau of maternal and child health. In 40 States, such divisions are directly under the State health officer. Other States vary in their administrative organization.

A physician is in charge of the division or unit responsible for this program. The staff may also include obstetricians, pediatricians, psychiatrists, psychologists, dentists, nutritionists, public health nurses, medical social workers, and health educators. The function of this State division or unit is to develop and provide, with the help of local health departments, State-wide health services to children from birth through school age, and to mothers before and after childbirth. Through financing postgraduate education and through consultation, the division also helps professional workers in private practice or public service to improve the care they provide mothers and children.

Half (Fund A) of the $11 million in Federal grants now made available to the States each year for these services must be matched by the States. Each State receives from Fund A a uniform grant of $35,000, and the remainder is prorated among the States according to the number of live births in each State. From the remaining $5.5 million (Fund B), a sum is set aside for special programs of national or regional significance in the improvement of services, and to meet emergencies. The balance is apportioned among the States according to a formula that reflects the financial need of each State for help in carrying out its approved plan, taking into account the number of live births. Special weight in the formula is given to rural births. The apportionment of Federal grants for the fiscal year 1947 appears in table 11.

Services provided by local health departments are designed primarily to help well mothers and children keep well. That is, they are services for the promotion of health and the prevention of illness. Many health departments also furnish medical, dental, nursing, and hospital care to a limited number of mothers and children, in special circumstances or in particular areas.

Immediately after increased funds for the child health programs were appropriated by Congress in August 1946, the Bureau called together its advisory committees to make recommendations on how the States might best improve their services to mothers and children. The Association of State and Territorial Health Officers was another source of guidance in developing these Federal-State programs. It was agreed that increased effort should be put into (1) extending or developing new programs for children with rheumatic fever, cerebral palsy, hearing defects, and other crippling conditions; (2) demonstrating school health service projects in selected areas; (3) further development of maternity care programs, including, in at least one area where the need is greatest, a comprehensive maternity care project established in cooperation with a teaching institution; (4) increasing and improving facilities for care of prematurely born infants; (5) developing medical and dental care programs for children; and (6) promoting mental hygiene programs for children.

Notable progress was made during the year in broadening the scope or increasing the coverage of maternal and child health services. Services traditionally thought of in connection with an essentially preventive and health promotion program, such as prenatal clinics, well-child conferences, and public health nursing services, were increased.

Sixteen States now make some provision for complete maternity care for a limited number of mothers or mothers in specific areas. In 17 States, hospital care for maternity patients is provided. Home nursing services are now available in 16 States. In contrast, in 1939, demonstrations of complete maternity care were under way in limited areas in only 8 States.

Clinical consultation to practicing physicians by obstetricians is another way in which improvements are being brought about. In

1939, only 11 States employed obstetric consultants on a full or part-time basis; in the fiscal year 1947, 23 States had such consultants.

By the beginning of 1947, 39 States had organized some services for the protection of premature infants, and 14 others were planning to institute some services in the coming year. Eight States are now operating centers for the care of premature infants, and in 6 others plans are getting under way. Demonstration services that provide care for premature infants and also graduate training for physicians, nurses, and other professional groups have been set up in 4 States. Consultation to practicing physicians in the care of premature infants is made available by 5 States and home nursing services by 7.

A few States have moved ahead to set up diagnostic and treatment clinics for infants and preschool children. Medical treatment is provided by 13 States for specified groups of infants and children under school age. Thirteen States also provide for medical examination of school children, and 7 for medical treatment of children of school age. Pediatric consultation is made available by 22 States for sick infants and preschool children, and by 12 States for sick children of school age.

As evidence of the importance of nutrition in promoting maternal and child health, 49 States have approximately 150 positions for nutrition consultants. These consultants provide consultation service to professional staff of State and local health agencies, to staff of other State and local agencies and organizations, and to institutions such as maternity homes and child-caring institutions.

Dental services have grown under the maternal and child health programs. In 1946–47, 45 States reported dental units as part of their maternal and child health services. Dental programs in 19 States include educational and diagnostic services at clinics conducted by local practicing dentists; 18 States provide for corrective dental service, either at clinics or in dentists' offices.

Increasing emphasis has been placed on the importance of mental hygiene services in promoting maternal and child health. In contrast to the few and scattered programs of 1939, 14 States had some kind of mental health projects in operation in 1947. All State programs were making increased use of mental health resources.

Thanks in large part to the additional funds, there was a general strengthening of medical and other personnel in the State programs. Medical positions in the fiscal year 1947 totaled 185, as against 130 in 1939. Most of the States, with the approval of the Children's Bureau, gave high priority in their budgets to graduate training for their staffs. In 1946–47, State agencies planned to spend approximately $1 million of their total maternal and child health funds on training of professional personnel. In the development of in-service training programs, the granting of educational leave, and the planning of training courses for physicians, psychiatrists, psychologists, dentists, nurses, and medical social and psychiatric social workers, the Bureau has collaborated closely with the States.

Institutes for nurses in pediatric and obstetric instruction were held during the fiscal year in various States. The Bureau's orthopedic, physical therapy, and regional nursing consultants participated in an orthopedic workshop conducted by Colorado for public health nurses. Substantial grants, approved by the Bureau, were made by State agencies to a number of universities for clinical courses in obstetric and pediatric nursing. In May 1947, a maternity nursing workshop was held under the sponsorship of the Maternity Center Association and the Bureau.

In the medical social work field, educational and training activities have included consultation with schools of social work in the development of courses in the social aspects of public health and medical care. The Bureau also assisted in developing institutes and seminars for medical social consultants in maternal and child health and crippled children's programs, held under the sponsorship of various universities.

Six States provided educational leave and stipends for 11 nutritionists for graduate study. The Bureau advised schools of public health and colleges of home economics on their graduate courses of training for nutrition work in the public health field.

In spite of new staff appointments and the efforts made by the States to recruit professional workers, many staff vacancies still existed in many States at the close of the fiscal year 1947. Low salary scales prevailing for some public health positions make recruitment of qualified personnel difficult. In all States, shortages of physicians who are trained or experienced in public health, obstetrics, or pediatrics handicap the rapid development of maternal and child health programs. On January 1, 1947, at least 2,489 vacancies existed in public health nursing positions for which budgetary provision had been made, although 750 more public health nurses were employed than a year earlier. Of the approximately 150 positions for nutritionists included in the annual budgets of the States, about 1 in every 4 was unfilled. The supply of medical social work personnel is still markedly limited for the 144 positions budgeted in the maternal and child health programs.

Despite personnel shortages, the program was able to serve slightly more children and mothers during the calendar year 1946.

The number of mothers who received antepartum medical services increased from 117,000 in 1945 to 129,000 in 1946, but the number receiving antepartum public health nursing services decreased from 238,000 to 231,000. Approximately 31,000 women were given postpartum medical examinations in 1946, as compared with 35,500 in 1945; some 203,000 received postpartum nursing services in 1946, compared with 201,400 in the previous year.

About 456,000 infants and preschool children attended well-child conferences in 1946, as against 426,000 children in 1945. Public health nursing services reached about 952,000 infants and preschool children, somewhat fewer than in 1945.

Physicians' examinations of school children numbered 1,587,000, as compared with 1,117,000 in 1945. The number of public health nursing visits for school health supervision increased from 2,166,000 to 2,184,000.

Nearly twice as many immunizations for smallpox were given—2,457,000 in contrast to 1,273,000 in 1945. Diphtheria immunizations also increased, from 1,360,000 to 1,452,000.

Dental inspections of school and preschool children by dentists or hygienists showed a substantial gain in volume in 1946, when they totaled 1,143,000 as compared with 788,000 in 1945.

The above figures are for the calendar year 1946 and thus include data for only the first half of the fiscal year 1947. Since increased Federal grants did not become available until the fall of 1946, the figures do not fully reflect the gains made possible with the increased appropriations.

Services for Crippled Children

The objective of grants-in-aid for services for crippled children is to help the States "extend and improve (especially in rural areas and in areas suffering from severe economic distress) . . . services for locating crippled children, and for providing medical, surgical, corrective, and other services and care, and facilities for diagnosis, hospitalization, and aftercare, for children who are crippled or who are suffering from conditions which lead to crippling."

All States have legislation authorizing an official State agency to provide treatment of and care for crippled children. In 31 States, this agency is the State health department, and in 10, the department of public welfare; other agencies are used in the remaining 12 jurisdictions. In its consultations with State agencies, the Children's Bureau, although recognizing the right of the States to work out their own machinery, has stressed the advantage of unified administration of the maternal and child health and crippled children's programs.

Of the $7.5 million in Federal grants for services for crippled children, half (Fund A) must be matched by the States. Each State receives $30,000, and the balance of Fund A is prorated on the basis of the number of children under 21 years of age in each State. Aside from a reserve amount for special projects, the remaining $3,750,000 (Fund B) is apportioned among the States on the basis of a formula that takes into account both the financial need of each State for assistance in carrying out its plan and the number of children under age 21. Again weight is given to the number of children in rural areas. The apportionment of Federal grants for the fiscal year 1947 appears in table 11.

States seek to provide a program of services through their crippled children's agencies that includes locating all crippled children; diagnosing their crippling condition; maintaining a register of all crippled children in the State; providing or locating skilled care for crippled children in hospitals, convalescent and foster homes, and in their own homes; and cooperating with agencies and professional groups concerned with the care and training of crippled children.

Services are State-wide but, because of limited funds, relatively few States are able to care for all the crippled children within their borders. Definite progress, nevertheless, is being made with the enlarged Federal grants in getting more services to more children.

At the close of the calendar year 1946, official registers of crippled children, maintained by State crippled children's agencies, included the names of more than 442,000 children, an increase since December 1945 of about 38,000 children. A child is eligible for registration if he has a type of crippling for which, according to the approved State plan, children may be accepted for care by the official State agency, and if the crippling condition has been diagnosed by a licensed physician.

Wide variation exists among the States in the proportion of the child population so registered. In Georgia, 4.1 per 1,000 children under 21 years of age appear on the register of the State agency, while in the District of Columbia the rate is 17.6 per 1,000. In general, a relatively low State rate seems to be due to incomplete registration rather than to a low occurrence of crippling conditions among children of the State. A beginning was made during the year, with the assistance of the Bureau's Advisory Committee on Crippled Children's Statistics, on a review of the purposes and uses of the crippled children's registers.

Reports provided by State agencies show increases in the calendar year 1946 in the volume of all types of services. More than 108,000 children received diagnostic or treatment service at crippled children's clinics, as compared with about 93,000 in 1945. More than 27,000 children were hospitalized and 4,700 received care in convalescent homes. Approximately 1.3 million days of care were provided in hospitals, and 478,000 days in convalescent homes.

The kinds of services have also been extended. During the fiscal year, Arizona and Hawaii initiated special programs for children suffering from rheumatic fever and rheumatic heart disease, bringing to 22 the number of States operating rheumatic fever programs. Most of these programs have provided complete care, including medical, nursing, and medical social services; facilities for diagnostic and treatment services; care in hospitals, sanatoria, or convalescent homes; and aftercare services necessary to safeguard medical gains. These programs serve only a limited geographic area, but expansion was under way in 15 States in 1947.

Of all crippling conditions represented on the State registers of crippled children, poliomyelitis ranks first. State programs have included not only services to children with residual paralysis but also their care during acute stages of the disease. In the calendar year 1946, more than 25,000 cases of acute poliomyelitis were reported, as compared with 13,500 in the preceding year. States in the North Central region, the Rocky Mountain area, and the far West experienced the highest incidence of the disease. In all instances the State crippled children's agencies either assumed leadership in the planning and administration of the services or participated actively in such planning.

State directors of programs for crippled children are showing increasing interest in services to children with cerebral palsy. This group of children has consistently ranked second only to those with poliomyelitis on State registers of crippled children. At the present time, more than 40,000 such children, nearly 10 percent of the total number on the registers, are known. Since 1937, at least 6 States have carried on special programs for children with cerebral palsy. At the end of the fiscal year 1947, 12 States had special programs for such children, and 7 more were planning such services for the coming year.

One of the most significant developments in the field of cerebral palsy is the rising tide of interest among groups of parents and influential lay organizations. Throughout the country, hundreds of such local groups are springing up. The National Society for Crippled Children and Adults has recognized the need for special efforts in mobilizing this spontaneous lay interest and has organized advisory councils and other services to provide leadership on a national basis.

The Children's Bureau, in March 1947, called together a conference of medical specialists and professional personnel from related fields involved in the care of the child with cerebral palsy. The conference, the first of its kind, drew up specific recommendations to be used as guidelines by the Children's Bureau and the State crippled children's agencies in getting work started on behalf of these tragically neglected children.

One additional State in 1946 extended its crippled children's services to provide care and treatment of children with hearing defects;

5 States now have such programs. About 20 States make some provision for surgical correction of visual impairments.

Demonstration projects, financed with Federal funds in the fiscal year 1947, are making progress. Maryland provided surgical treatment for heart disease. The District of Columbia started general pediatric care for children who were chronically ill. Maine established a special plastic surgery program. The Alaska Territorial Health Department put into operation the first hospital for crippled children in the Territory, eliminating the necessity for sending all such children to Seattle for hospital care.

Child Welfare Services

In every community there are children in trouble. The trouble may be caused by parents' ignorance, inadequacy, neglect, or death. It may be due to lack of good community resources and safeguards for all children. It may trace back to other factors detrimental to the development of emotional security and good social relationships.

These children may be living in their own homes, in foster homes, or in institutions. They may be children of illegitimate birth, or children needing legal protection of their person or property. Their need for help may be reported by parents, neighbors, teachers, police, judges, or other community leaders.

These are the children for whom the welfare agency of each State has created a specialized child welfare service. This service is usually provided by a division of child welfare in the State department of welfare that works with local welfare agencies. Child welfare staffs of State welfare departments include professional social workers with training in the problems of children in need of special care and service.

The 1946 amendments to the Social Security Act, which increased grants for these services from $1,510,000 to $3,500,000 annually, raised the minimum available to each State department of welfare from $10,000 to $20,000. The remainder is allotted according to the proportion that a State's rural population bears to the total rural population of the United States. The apportionment of grants to the various States for the fiscal year 1947 appears in table 11.

Federal funds for child welfare are and have always been limited to "payments of part of the cost of district, county, or other local child welfare services in areas predominantly rural, and for developing State services for the encouragement and assistance of adequate methods of community child welfare organization in areas predominantly rural and other areas of special need."

Child welfare services provided in communities can best be described by listing the types of service given in various localities. These services, which all require the skills of properly qualified social workers, are (1) counseling on problems of children in or out of their own homes; (2) arranging for foster-home or institutional care for children who need care away from their own homes, either on a temporary basis or as a permanent arrangement; (3) finding and securing the necessary attention for children who have physical, mental, and emotional handicaps and who are not receiving the care they need; (4) safeguarding children of illegitimate birth; (5) assisting courts handling children's cases; (6) cooperating with State institutions caring for children; (7) working with mental hygiene clinics; and (8) assisting schools in handling attendance and conduct problems. Child welfare workers also aid in the organization of community services for children, including services needed for the prevention of juvenile delinquency.

Soon after Congress made available the increased grants, four regional conferences with State administrators and directors of child welfare were held to discuss directions which the expanded programs might take.

Significant conclusions were reached at these conferences as to the basic premises and objectives of public social services to children. There was general agreement that the State has a responsibility for providing services to all children, irrespective of sex, race, creed, residence, or economic status. Strong evidence was presented that local welfare agencies cannot provide adequate care and facilities without State aid, and that Federal funds are needed to strengthen State resources. It was clear from these discussions that child welfare services have done a great deal to lay the basis for broad public social services that draw no lines between the economically needy and the rest of the people.

An acute shortage of qualified personnel is one of the most serious problems confronting all social agencies. Training at schools of social work, therefore, was one of the major uses to which the States put the additional Federal funds. Typical of the use of such grants is the program worked out by North Carolina, which budgeted $12,000 for this purpose. A total of 31 persons received grants for periods of study ranging from 3 to 9 months. Twenty of them had no previous professional training.

The full time of a special consultant on the Children's Bureau staff is devoted to advising with the States on programs for staff development, methods of training, policies of educational leave, cooperation with schools of social work, and recruitment problems. A Nationwide survey has been made of the methods used by State welfare agencies in the recruitment of staff, and an appraisal of the relative merits of such methods is being prepared for the use of these agencies. The Special Committee on Training and Personnel, advisory to the Children's Bureau and the Bureau of Public Assistance, was of major assistance in formulating policies on educational leave and field-work placements.

The regulation on the use of Federal funds by the States in paying for the maintenance of children in foster care was revised during the fiscal year to allow these funds to be used for the temporary care of children in boarding homes or care in such homes for special groups of children with particular needs. Louisiana, one of the two States using Federal money for this purpose, has arranged in one area for the payment of a monthly subsidy to foster parents, in order to have available at all times one or more boarding homes for the temporary care of children awaiting court hearing. Wisconsin likewise provides, in a limited area within the State, for boarding homes for temporary care of infants of unmarried mothers while plans for adoption are pending. Another State is considering developing a homemaker service for families in three rural counties.

Since this was the first year that a Federal grant was available to the Virgin Islands, the Bureau gave special attention to working out plans for child welfare work there. Two trained child welfare workers from the continental United States have been engaged to work in the Virgin Islands for 2 to 3 years, and arrangements are being made for beginning a training program for local personnel.

Approximately 230,000 children were receiving noninstitutional services from public child welfare agencies on December 31, 1946, an increase of about 5 percent over the number a year earlier. Of every 5 children receiving such services, 2 were living with parents or other relatives, 2 were in foster-family homes, and 1 was in an institution or elsewhere.

The extreme variation in the availability of child welfare services among the States and among different sections of the country shows up in the reports for December 1946. In 35 States reporting, 4.6 out of every 1,000 children under age 21 were receiving service, but the number was as low as 0.8 per 1,000 in Tennessee and as high as 17.1 in Minnesota. Despite the large number of Negro children in the South and the generally lower socio-economic status of their families, fewer Negro than white children in relation to the total number in each group were served by public child welfare agencies in the South, while the reverse was true in the North and West.

These variations reflect the level of development of child welfare programs and the adequacy of funds for their operation more than they do the differences in need for service among the States. As of June 30, 1946, there were slightly more than 2,200 full-time child welfare workers paid from public funds, but more than half of them were concentrated in 7 States and 1,300 were working in 237 urban counties In addition to full-time child welfare workers, 663 other employees were devoting full time, and 2,981 part time, to these programs.

Emergency Maternity and Infant Care Program

Unlike the regular maternal and child welfare programs under the Social Security Act, which require State financial participation, the special wartime program for emergency maternity and infant care has been financed entirely by the Federal Government from its general tax revenues. Liquidation of the program started on July 1, 1947.

Launched by unanimous vote of Congress on March 18, 1943, and supported each year with appropriations unanimously approved, the emergency maternity and infant care program has proved to be the biggest public maternity care program ever undertaken in this country. The Children's Bureau has had continuing responsibility for its Federal operations.

Under the program the Federal Government undertook to provide maternity care for wives of enlisted men in the four lowest pay grades of the armed forces and of aviation cadets, and to provide medical, nursing, and hospital care for their infants during the first year of life. Care provided was without cost to the serviceman's family. From the start of the program through June 30, 1947, a net total of $124.9 million had been allotted to the States to cover the cost of care and State administrative expenses. More than 1,420,000 cases had been completed or approved for care.

State health departments administered this program, and to them large credit must go for the efficient operation of the huge undertaking. The many private physicians and hospitals accepting responsibility for providing care also merit the Nation's gratitude, for without their skills and service the program could not have been undertaken. At its peak in 1945, 48,000 physicians and 5,000 hospitals were cooperating. These figures represented 50 percent of all active physicians in private practice and 90 percent of the registered hospitals, other than those caring for mental, nervous, and tubercular patients.

With the close of hostilities in 1945, the abandonment of Selective Service in March 1947, and the return to peacetime conditions, the need for an emergency maternity and infant care program obviously shrank. Only 152,000 new cases were authorized in the fiscal year 1947, of which 100,000 were maternity and 52,000 were infant cases. In the fiscal year 1945, on the other hand, approximately 385,000 new cases were authorized. As applications for maternity care fell off, applications for infant care naturally assumed a larger proportion of the case load. In the last 6 months of the fiscal year 1947 the number of infant cases represented 41 percent of all authorizations, as compared with 11 percent in July–December 1944. At the close of the fiscal year the States were carrying about 106,000 uncompleted cases.

The general postwar rise in prices showed up in the cost of maternity cases. The average cost of maternity cases completed in the last quarter of the fiscal year 1947 amounted to $100.40; in the first quarter the figure was $90.55. The average cost of infant cases that were completed in the last quarter was $60.80, as against $59.95 for the quarter ended September 30, 1945. A major reason for the higher cost of maternity cases was the increase in the cost of hospital care. Almost 93 percent of the maternity cases completed during the fiscal year were delivered in hospitals; less than 1 percent were not attended by physicians.

All cases authorized before July 1, 1947, will be completed. New cases thereafter may be accepted only if the mother or infant was eligible for care as of June 30, 1947. It is anticipated that the last case will be completed within the 2-year period July 1, 1947–June 30, 1949; Congress has appropriated $3 million for that period.

Investigating and Reporting Services, 1946–47

Basic to all the work of the Children's Bureau is its responsibility, under the act of Congress creating the Bureau in 1912, to investigate and report "upon all matters pertaining to the welfare of children and child life among all classes of our people."

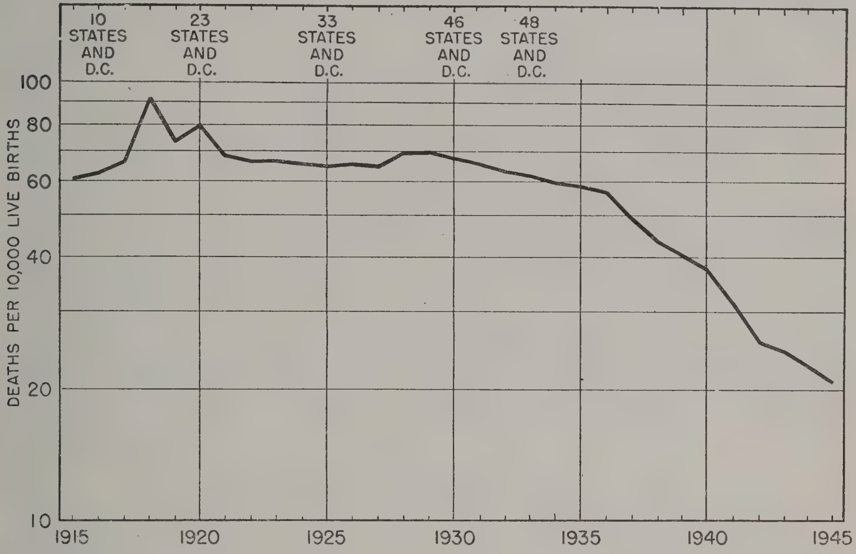
Little occurs in the economic, social, and cultural life of the Nation that does not in one way or another, directly or indirectly, impinge on the "welfare of children and child life." Since the Bureau must work within the limits of its personnel and budget, it must be selective in its investigations and reporting, focusing its efforts on areas where there is most need for information and where information can best be used in helping public and private services increase their usefulness to children.

Research

Mortality studies.—The year 1945 was a banner year for the United States in the safeguarding of mothers and children from fatal risks in childbearing and in infancy. The maternal mortality rate, 20.7 deaths per 10,000 live births, was the lowest ever recorded in this country and 9 percent below the 22.8 recorded for 1944. Likewise, the infant mortality rate as conventionally computed declined from 39.8 per 1,000 live births in 1944 to 38.3 in 1945. When adjusted for the changing number of births, the rates were 39.4 in 1944 and 38.2 in 1945, a decline of 3 percent. Preliminary figures for 1946 indicate a further decline.

Despite the encouraging showing in national rates, maternal mortality in some States, particularly among nonwhite mothers, was disproportionately high. An analysis and appraisal of maternal and infant mortality rates in 1944 indicate that reduction in maternal mortality among nonwhite mothers lags 15 years behind that for the rest of the population.

A study of neonatal deaths emphasized again the importance of concentrating attention on risks in the first month of life if the infant mortality rate is to be significantly lowered in coming years. While death rates for the first year of life dropped 29 percent from 1935 to 1944, rates for the first month declined only 24 percent in the same period. Sixty-two percent of all infant deaths in 1944 occurred when the infant was less than a month old. Deaths due to premature birth are the largest single cause of mortality during the first year of life. At least two-thirds of these deaths could be prevented if the infants could all receive care in modern "premature centers" with especially trained medical and nursing personnel.

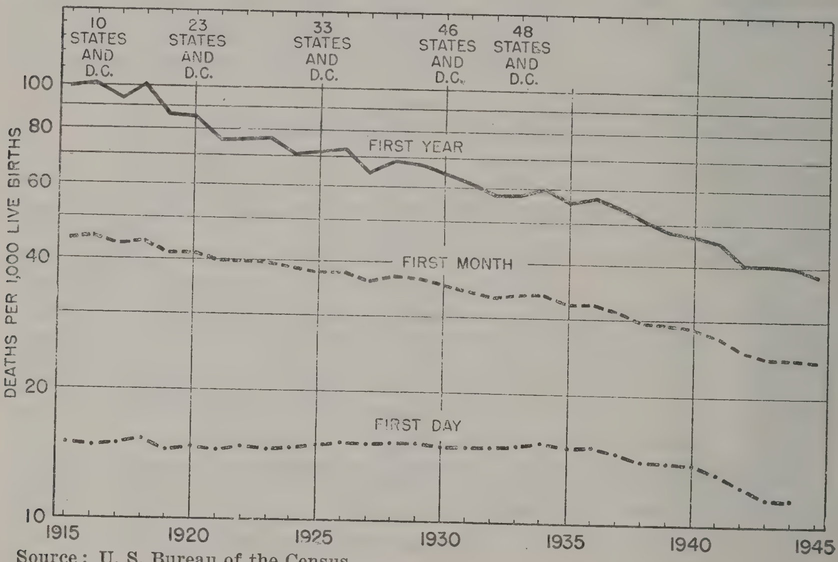


Source: U. S. Bureau of the Census.

CHART 12.—*Maternal mortality rates, 1915–45*

A study of childhood mortality due to rheumatic fever and heart disease in the United States, based on data for 3-year-average periods in each of three decades—the 1920's, 1930's, and 1940's—indicates that, whenever death rates are based on large groups, mortality from rheumatic heart diseases is higher among nonwhite than white children. The sex difference in mortality is, generally speaking, insignificant, except in the group 15 to 19 years of age. Death rates from these diseases in the South and the Pacific Coast States tend to be below, and in the Middle Atlantic States above, the national average for both white and nonwhite children. The Mountain States have extremely high rates for the white group.

Child health survey.—By June 30, 1947, all States were participating in the study of child health services undertaken by the American Academy of Pediatrics with the cooperation of the U. S. Public Health Service and the U. S. Children's Bureau. The Bureau has aided this study, the most comprehensive of its sort ever undertaken in this country, by lending the director of its Division of Research in Child Development to the executive staff of the study. A preliminary analysis of the returns from North Carolina, used as a pilot State, was issued for the annual meeting of the American Academy of Pediatrics in February.



Source: U. S. Bureau of the Census.

CHART 13.—*Infant mortality rates, by age, 1915–45.*

Dental health studies.—Investigation to develop plans for dental health services for children continued during the year. One was an evaluation of a dental health program for elementary school children, involving the analysis of dental records collected through the Cleveland Department of Education's Dental Health Service; these records include the findings from at least six annual examinations, as well as data on follow-up efforts and dental correction. Records of mobile dental units supplying dental care to children in rural areas in Kentucky over a 5-year period were studied to obtain data on cost, coverage, dental man-hours, types and number of services rendered, and the time necessary for various operations. A study of the budgets and expenditures of all State health departments for dental health programs from 1937 through 1946 was inaugurated during the year. In June 1947 the Bureau held a conference with authorities on orthodontic needs of children and the methods, services, and problems involved in meeting those needs.

Pediatric nursing study.—In cooperation with the National League of Nursing Education, the Bureau made a controlled study of the elements that go to make up good pediatric nursing care in hospitals. Results of the study will be published by the National League and so made available to hospitals and others responsible for standards of nursing care of sick children.

Visual-testing study.—During the fiscal year a conference was held of representatives from the fields of education, medicine, nursing, medical social work, and welfare, to give advice on the conduct of a study of the various vision-testing procedures commonly used in elementary schools. The study is to be made jointly by the Bureau and the National Society for the Prevention of Blindness, with the cooperation of a State health agency.

Guardianship.—The growing number of children entitled to benefits under various public programs makes extremely timely a study of laws and procedures governing the legal guardianship of children. Many such laws are antiquated, and practices under them have lagged far behind modern knowledge of the social needs of children. The Bureau will soon release the final report on its study of court records, procedures, and cases of children under guardianship in two local jurisdictions in each of six States.

Advisory Services on Problems Affecting Children

Services to children with special needs.—Consultation services were given to States and local groups in the field of juvenile delinquency and community planning for children and youth. In addition, the Bureau completed several special studies in that field. The report of the Bureau's 7-year project in St. Paul, Minnesota, demonstrating the value of an integrated and specialized community service for children showing early behavior problems, was published under the title, *Children in the Community.* A popular version of the report will be released later this year. The final report of the project jointly conducted by the Children's Bureau and the Bureau of Public Assistance in Newport News, Virginia, recounts the efforts made during wartime in organizing a community to deal with the treatment and prevention of juvenile delinquency.

The method of reporting juvenile court statistics, collected each year by the Bureau since 1927, was revised to attain broader coverage through collection of local data by State welfare agencies, and to yield information both on the types of cases disposed of and on the number of children served. Final figures for 1945 show that the number of cases disposed of by courts reporting to the Children's Bureau was 6 percent greater than in 1944.

Much staff time went into preparing material for consideration by the National Conference on Prevention and Control of Juvenile Delinquency, called by the Attorney General.

Serious situations are reported of inadequate, if not positively bad, care and treatment of boys and girls in training schools in many States, because of poorly qualified personnel and inadequate facilities. Several State schools were visited, and suggestions were given on improving standards of service and integrating the State's training school programs into its total child welfare program. At the request of the Child Welfare Division of the American Legion, a study was made of the policies and practices of 22 States in admitting pregnant feeble-minded and epileptic girls to State training schools.

In connection with the wide variety of requests that come to the Bureau for information and counsel on problems connected with the care of children away from their homes, considerable exploratory work was done during the year in collating facts about current and desirable practices on such aspects of foster care as foster-home finding, intake policies, size of case loads, board rates, costs of institutional care, personnel practices, in-service training programs, foster-parent education, licensing, and general standards of care. Consultation service was given to many public and private agencies. Special attention was given during the year to problems of interstate placement.

It becomes increasingly evident that the public is looking to public welfare agencies for guidance and assistance in adoption matters. These agencies, in turn, look to the Children's Bureau for counsel in the development of their policies. Consultation on adoption policies was also given to private agencies during the year. The Bureau's consultant on adoptions worked with the March of Time on its special feature, *Nobody's Children.* A new folder for parents was published under the title, *When You Adopt a Child.*

While there is a continuing need for day-care services for children, the supply is decreasing. Requests for counsel received from Federal, State, and local agencies by the Bureau covered problems of licensing, standards, building requirements and equipment, and methods of appraising need for programs. An interpretation of foster-family day care was published under the title, *Mothers for a Day.*

Interest in improving services to unmarried mothers and their babies has become Nation-wide. The Bureau was called into consultation by public and private agencies in several States. Improvements were reported during the year in methods of birth registration as one means of safeguarding the welfare of children, particularly those born out of wedlock.

The Bureau has been called on for consultative help by both private and public welfare agencies, which are making more use of homemaker services to give trained and supervised care for children in their own homes. In Colorado, homemakers are available for assignment in counties. In New York City and Chicago, homemakers are employed in the public welfare departments.

Increasingly, agencies are recognizing the therapeutic value of group work, as distinct from individual case work, with children. Both the Colorado and Indiana welfare departments are using group-work consultants in their State child welfare programs. The Bureau gave consultation service to Illinois, Maine, and Michigan on the use of group work in convalescent care programs and camping programs for children with physical handicaps.

Services to children in special groups.—Evidence of the health and welfare needs of children of migratory workers, among the most neglected in the Nation, was presented by the Bureau at meetings of the Federal Interagency Committee on Migrant Labor, of which the Children's Bureau is a member. In its report, *Migrant Labor*, the Committee concludes that "child labor, substandard living, and a padlock against education have destroyed the rights of children and drastically disturbed the integrity of family life among migrant workers . . . The health hazards to which they are exposed are a menace not only to themselves and to their children, but also to the people and families with whom they come in contact all along their line of march." In recommending that all appropriate State and Federal agencies carry through practical measures "which will insure adequate housing, health, nutrition, welfare, and related services," the Committee makes specific suggestions on how conditions for children might be improved.

Special consultation on services to children in minority groups was given to such national organizations as the United Council of Church Women, the National Colored Parents and Teachers Association, the National Council of Negro Women, the Sigma Gamma Rho Sorority, and to public welfare and private child-caring agencies in California, Kansas, Missouri, and Texas.

Great increases in college enrollments of married students with families have raised problems of importance to public health and welfare agencies. At the request of the American Council on Education, the Bureau cooperated in a survey of community services needed for the care of these families. The Council is sending results of the survey to presidents of State associations of colleges with the suggestion that they call State-wide meetings of representatives of colleges, universities, veterans' organizations, welfare agencies, and other interested groups to work out plans for the development and coordination of services at State and community levels.

Mental health programs.—To meet the increasing volume of requests for guidance in the use of psychological and psychiatric services by public health and welfare agencies in all programs of foster-family and institutional care of children, the Bureau conducted a number of field investigations during the year. Exploratory visits were made to public and private agencies in Illinois, Kansas, Minnesota, and Ohio to observe the type and content of services provided for children with disturbed behavior patterns.

Educational and employment opportunities for youth.—On behalf of the Interagency Committee on Youth Employment and Education, the Chief of the Children's Bureau, who was also chairman of the Committee, late in 1946 submitted a report and recommendations to the Director of War Mobilization and Reconversion. The report summarizes the observations of 11 Federal agencies on problems of school and employment opportunities for young people and lack of community preparation to deal with youth needs in the postwar period.

State legislative proposals.—Service was given to groups in many States on provisions concerning children, to be included in bills to go before the State legislatures. Among the subjects on which legislative changes were proposed or enacted were the following: adoption, birth registration, licensing of institutions and agencies, foster homes, and maternity hospitals and homes.

Reporting Services

Information concerning the research reports mentioned in the preceding pages and on other studies now under way is available on request from the Bureau. Results of the Bureau's studies and surveys are communicated to public and private agencies administering programs for children. In its monthly periodical, *The Child*, and through other mediums, the Bureau discharges its responsibility of reporting to the public and to professional workers on all aspects of child life.

In the fiscal year 1947, 234,000 letters came to the Children's Bureau. Many could be answered with a publication. The others needed, and got, the personal attention and counsel of a social worker, a doctor, or a nurse.

A mother of six, for instance, who is ill and cannot care adequately for her youngest child, asks where she can turn for help. Another mother, with a 6-month-old child left blind and deaf after an attack of spinal meningitis, wants a book on how to care for him. A father, unable to support his family of eight, is desperate because his 11-year-old son cannot walk. The parents of 10 children write that floods have wiped out their crops and they have no way to pay for an operation badly needed by their 4-month-old baby. A boy, 15 years old, is about to be released from a training school; his stepmother, convinced that he will need the care of a psychiatrist on his release, writes for advice.

The Bureau does not attempt to solve the writers' problems at long distance. It puts the writer in touch with the appropriate resources close at hand which—in many instances State and local health and welfare agencies—can be counted on for understanding and skilled advice.

Many inquiries come from professional workers, administrative personnel, and from civic leaders. A doctor in Haiti, appointed obstetrician for a general hospital, wants a list of the most recent books and journals in the field. A Friends Service Committee wants teaching material for its workers on child care. A civic council wants to work on improving detention facilities for children awaiting appearance before the juvenile court. A group of neighbors decides to do something about their young people's problems and wants a trained person to make a survey.

During the fiscal year, 2.1 million publications were mailed out in response to requests. The great majority were the Bureau's well-known bulletins for parents. More than a million copies of *Infant Care* were requested from the Bureau, and another 397,000 were sold by the Superintendent of Documents. From 1914, when the first edition of this bulletin was brought out, to the end of June 1947, more than 20½ million copies had been distributed. Requests during the year for free copies of *Prenatal Care* totaled 232,100 and for *Your Child from One to Six*, 237,000. During the year the Bureau issued 35 new and 14 revised publications.

As one way to report to the people what it knows and to learn from the people what they want from public service, the Bureau has always kept in close touch with the many national, State, and local groups concerned with the welfare of children. During the war, leaders from many of these groups formed a national body, known as the National Commission on Children in Wartime. This organization was immensely valuable in counseling the Bureau and in focusing public attention on the needs of children under war pressures. In December 1946 the Commission reconstituted itself as the National Commission on Children and Youth and voted to continue as a body advisory to Federal agencies and to citizen groups supporting programs for children and youth. Members are appointed, on advice of the Executive

Committee, by the Commission's chairman and by the Chief of the Children's Bureau.

At its first meeting in December the new Commission adopted an "Action Program for 1947 and 1948." This action program emphasized again the need for expansion of social security programs affecting family income; child welfare and child health services; Federal and State aid for education; mental health and guidance programs; recreational opportunities for children; improved child labor legislation and employment opportunities for boys and girls ready to start work; State and community planning for children and youth, with youth participation in such planning; and international action to strengthen services for children and youth in all countries. The Commission strongly recommended that a 1950 White House Conference on Children be held and that in anticipation States and local communities should measure the progress made since the last conference and, on that basis, determine problems that need to be taken up at the national conference.

Representatives of 17 State commissions or councils on children and youth met with the National Commission at its first gathering and discussed their widely varying experiences and plans for improving conditions for children within their States. Three that were organized by citizens or appointed by Governors during the year included the Texas Committee on Children and Youth, the North Dakota Youth Council, and the South Carolina Youth Conservation Committee. Several State legislatures passed laws establishing commissions, notably the Arkansas Council for Children and Youth, the Colorado Children's Code Commission, the Florida Children's Commission, the Kansas Juvenile Code Commission, and the Oklahoma Children's Code Commission.

International Cooperation, 1946–47

Together with 21 other Government departments and agencies the Children's Bureau is cooperating in the Program of the Interdepartmental Committee on Scientific and Cultural Cooperation under two acts of Congress relating to international cooperation. One is Public Law No. 63, Seventy-sixth Congress, as amended in 1939, which authorizes the temporary detail of United States Government employees to the other American Republics, the Philippines, and Liberia, when these countries request assistance in their cultural or scientific programs. The second is Public Law No. 355, Seventy-sixth Congress, approved August 9, 1939, which gives the President authority to use the services of Government agencies in carrying out agreements reached by the 21 American Republics at inter-American conferences. Member agencies of this Committee receive a special budget from the Department of State for their activities under these provisions.

Under this program of international cooperation, the Children's Bureau lends other American Republics, on request, the services of its consultants in child health and child welfare for limited periods. It also assists specialists from other American Republics in planning and carrying out studies and observations of child health and welfare services in this country.

During the fiscal year 1947 the Bureau assigned a medical consultant, a nutrition specialist, public health nurse midwives, and child welfare workers to work with governmental agencies in Argentina, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, and Peru. In some instances this staff worked directly in the maternal and child welfare programs of these countries; in other cases they assisted governments in developing training programs for professional workers in the health and welfare fields.

In Peru, for instance, the Bureau's child welfare worker cooperated with a special mission sent to relieve an area severely devastated by earthquake. Help was given to Brazil's National Children's Bureau in developing its training program for child welfare workers. In Ecuador, assistance was given to the Ministry of Social Welfare in reorganizing a school of social service. The nutrition consultant helped official agencies in Guatemala in preparing a child-feeding manual for the use of physicians and nurses in health centers. The Bureau's public health nurses held special institutes for midwives in Mexican border States.

Four specialists from Bolivia, Mexico, Panama, and Paraguay received grants to study child health and welfare services in the United States in the fiscal year 1947. Their schedules in this country were worked out by the Children's Bureau. Similar guidance was given to more than 200 visiting specialists from countries in other parts of the world who were referred to the Children's Bureau by the U. S. Department of State, United Nations agencies, and individual foreign agencies.

Child health and social problems in border communities were studied at two conferences held in Laredo, Texas, and San Diego, California, in May and June 1947, respectively, under auspices of the Mexico-United States Border Health Association. Among those who attended were representatives of the Mexican Government and of the Children's Bureau.

The Chief of the Children's Bureau, who is the official United States representative on the council of the American International Institute for the Protection of Childhood, was represented at its meeting in Montevideo, Uruguay, in April 1947. Plans were made at this meeting for the Ninth Pan American Child Congress to be held in Caracas, Venezuela.

To appraise the need for maternal and child welfare services in the Philippines, the Bureau sent a medical consultant and a psychiatrist to the Islands for several months to make observations in cooperation with agencies of the Philippine Government.

Assistance was given to the United States Committee for the Care of European Children, responsible for placing unaccompanied children who enter the United States under authorization of the President's directive of December 22, 1945. These placements are made under the supervision of social agencies designated by the Children's Bureau.

Problems arising from the adoption of Canadian children by United States citizens who bring their adopted children to this country were worked on by the Bureau in cooperation with the Canadian Welfare Council. Under the Bureau's auspices, a conference with representatives of eight State public welfare agencies was held in Philadelphia in October 1946, looking toward the development of a mutual understanding on adoption procedures between Canadian and United States public welfare agencies.

Various conferences were held during the fiscal year on problems arising from the presence of United States troops in other countries. These relate to questions of paternity, claims for support, and petitions for adoption of children who were born out of wedlock and whose alleged fathers were members of the United States armed forces.

Improving Services for Mothers and Children

Against the record of achievements recounted in this report must be balanced the size of the job to be done for the children of the Nation.

Much of the evidence of need for services was presented to the Seventy-ninth Congress, which increased the Federal grants to $22 million. Additional testimony was presented to the Eightieth Congress in hearings on such bills as the National Health Act of 1947, the National Health Insurance and Public Health Act of 1947, and the National School Health Services Act of 1947.

Further documentation of the need of great numbers of children for a better chance in life was strikingly presented in *A Program for National Security*, the report of the President's Advisory Commission on Universal Training, submitted on May 29, 1947.

"The factors that make an individual fit or unfit to defend his country," the report states, "are many years in the making; when an emergency comes, relatively little can be done to remedy his past lacks and present deficiencies." After an illuminating summary of some of the available information on how far we have "actually come in making sure that every child has what all children need," the report concludes that "the children that represent the majority of our future citizens—country children, children in low-income families, and children in minority groups—have a disproportionately small share in resources, safeguards, and opportunities that all children need. Now, as in the past, our cities and industries look to rural areas and low-income groups for population growth, for the development of production, for markets. The handicaps that many American children face in health, nutrition, education, and housing, and the inadequacies in community services and safeguards for children must concern the whole Nation."

The great gaps now existing in the maternal and child welfare services will disappear only when there is full public acceptance of responsibility for seeing that facilities are made possible for continuous study and investigation of the causes and the extent of need, and that services known to be necessary to protect and maintain the health and well-being of mothers and children are within reach of all mothers during maternity and of all children wherever they may be living. The Act of 1912 creating the Children's Bureau gives that Bureau the authority to make the necessary studies and investigations; the Social Security Act provides the authority under which the Federal Government now gives its support to State programs. Serious consideration, however, needs to be given to the inadequacy of the implementation of the former and to the adequacy of the provisions of the latter to meet the current needs.

There are some 3,100 counties in the United States. Two out of five do not have the service of a full-time public health unit; one out of three has no public health nurse. Three out of five rural counties have no regular maternity clinics; two out of three have no well-child conferences. Twenty-five States have no child-guidance clinics in any community. Approximately five-sixths of all counties have no full-time child welfare worker paid from public funds. Present workers are most unevenly distributed among the States, and between rural and urban areas. In no State or city of the country is there complete coverage of well-rounded, well-developed, and comprehensive programs of child welfare services.

These are a few of the more obvious gaps. To close them, legislation must be ample in scope and must provide for adequate financing of services. It must provide for progressive development of the full range of health and welfare services for parents and children; for care of high quality; for training of personnel in the special fields of service; and for parent education in the essentials of good care. Such services should be provided without discrimination as to race, creed, nationality, residence, citizenship, or economic status.

In considering how programs can best be expanded, special thought needs to be given to the school-age child, who so frequently is suffering defects or conditions which can be readily corrected in this age period and which, if neglected, may lead to serious handicaps in later life. The hundreds of thousands of children of migratory workers who are now beyond the reach of practically all health, welfare, educational, and other community services must also be given special attention in the development of State programs and in the financial support given them by the Federal Government.

To protect and safeguard the rights of parents and children to these services, State programs should provide full opportunity for fair hearing before the responsible State agency whenever a claim for care or services is denied. As a corollary, State agencies must exercise all necessary precautions against the use or disclosure of information concerning persons applying for or receiving health or welfare services for purposes other than those directly connected with the administration of such services.

In planning this progressive development of services, care must be taken to achieve their effective coordination with other public health and welfare services for the community, so as to avoid duplication and confusion and to achieve rational and well-integrated programs of health and welfare services that reach all people in need of them, whatever their age. While considerable progress has been made in integrating State programs of maternal and child health services and services for crippled children under the same State health agency, there remains room for improvement in this area of administration. Good administration calls for such integration in every State. It should be possible to achieve this goal within 5 years.

Provision for adequate representation of the public, as well as of the professions, on advisory committees to the administrators of health and welfare services is a sound principle of democratic government. Such advisory committees should be developed in all States to give counsel and assistance to State agencies in the planning and direction of these children's programs.

Parallel to the need for expanding child health and welfare services is the need for trained personnel to provide these services. Some of the gains made during the fiscal year 1947 are directly attributable to the return of military personnel to their civilian posts as workers in State and community programs. While this increase in available workers was invaluable, in no single program for children are there enough workers to supply the services now authorized or to carry out an expansion. The States are attempting, within their present limited funds, to meet immediate personnel needs through in-service training, financing of postgraduate education, and part-time employment of staff members of teaching institutions for consultation in the service programs. These efforts fall far short of meeting the situation. Adequate provision must be made, through legislation, for expanding the supply of professional personnel in the various specialties through training programs financed by the Federal Government and by the States receiving Federal grants for their child health and child welfare services.

Research is the cornerstone both of an efficient program of services and of public understanding of the needs of children. Compared with the widespread research, publicly financed, in the development of plant and animal life, relatively little is done in the field of child growth and development. Many research projects that can best be studied on a national scale cannot be undertaken because of lack of funds. Many that could be undertaken by public and private agencies in the States and communities are also blocked by insufficient support. Better coordination and interchange of information is needed to multiply the usefulness of the research now going on. For these purposes, financial help is needed from the people as a whole.

It has become a tradition in the United States every 10 years to assess the condition of children and to measure the distance we have come in providing them with opportunities for wholesome growth and development. This has been the function of the White House Conferences on children. The first was held in 1909; the fourth, in 1940. It is time, now, to plan for a 1950 White House Conference.

Just as we have learned that the welfare of a few children in a community cannot be assured unless all children in the community have the same assurance, so it is with the children of this Nation and of other nations. There must be increasing opportunities for cooperation in matters of concern to children, both between individual governments and through international channels, particularly the United Nations and specialized agencies.

GENERAL ADMINISTRATION

The Social Security Administration

On July 16, 1946, the Social Security Administration came into being to continue the work which since 1935 had been the responsibility of the three-member Social Security Board. The functions of the Board were transferred to the Federal Security Administrator on July 16 by the terms of President Truman's Reorganization Plan No. 2 of 1946, and on the same day the Administrator issued an order creating the Social Security Administration with the Commissioner for Social Security as its head. The Reorganization Plan also transferred the Children's Bureau from the Department of Labor to the Federal Security Agency, except for its Industrial Division through which the Bureau had exercised its functions under the Fair Labor Standards Act of 1938. Under the Administrator's order, the Children's Bureau became a part of the Social Security Administration.

Thus the Social Security Administration has four program bureaus instead of the three of its predecessor, the Social Security Board. Most of the functions of the Board, as well as those relating to the Children's Bureau, were vested by the Administrator in the Commissioner for Social Security. The principal exceptions were membership on the Board of Trustees of the Federal old-age and survivors insurance trust fund, which was retained by the Administrator, and the functions of the Appeals Council, established as an independent unit within the Social Security Administration to pass upon appealed claims for old-age and survivors insurance.

Arthur J. Altmeyer, one of the Social Security Board's original members and its Chairman since February 1937, was appointed Commissioner for Social Security. William L. Mitchell, Assistant Executive Director of the Board at the time of the transfer, was appointed Deputy Commissioner.

International Activities

The development of United Nations organizations in the field of social security and the readjustment or establishment of social security systems in many countries after the war have increased greatly the demands for knowledge about social security systems in this country and for technical advice on social security problems in other countries. These developments in turn have broadened the Administration's areas of activity in discharging the responsibilities imposed by section 702 of the Social Security Act for studying and making recommendations as to the most effective methods of providing economic security in this country through social insurance. During the year, more than 300 persons came to the Administration to study the operation of our programs and to give us information on programs in their own lands. These persons included professional and technical social security personnel from more than 40 countries, who have carried on study programs or consulted with staff of the Administration.

As part of the inter-American program on scientific and cultural cooperation, sponsored by the Department of State, the bureaus of the Social Security Administration have arranged for officials from Latin-American countries to study social security programs in the United States for periods of 4 to 6 months. Also, under this same program of technical collaboration, the Children's Bureau has had representatives in South America, at the request of governments there, giving advice on child welfare and child health programs. The UNRRA program of fellowships brought many experienced officials from Europe and the Far East to study aspects of social security here in order to be better prepared for the work of reconstruction in their own countries.

The Administration, through cooperation with the State Department, conducted a 3 weeks' institute on social security for representatives from 10 other American Republics. This program included conferences in Washington; field observation of the operation of the old-age and survivors insurance, employment security, and public welfare programs, including public assistance, child welfare services, and child health clinics; and a visit to the United Nations headquarters at Lake Success.

Officials and staff members of the Social Security Administration have served as United States representatives on various United Nations commissions and organizations. In January 1947, Mr. Altmeyer's nomination by the President as United States representative on the Social Commission of the Economic and Social Council for a 2-year term was confirmed by the Senate. At its initial meeting in February, Mr. Altmeyer was made Chairman of the Commission's Temporary Social Welfare Committee, and at the first session of the General Assembly of the United Nations he was elected one of three experts to serve on the Staff Benefit Committee advising on the United Nations Joint Pension Scheme. Katharine Lenroot, Chief of the Children's Bureau, was appointed by the President to serve as United States representative on the Executive Board of the International Children's Emergency Fund, established to assist in the rehabilitation of children of war-torn countries and for child health purposes generally. Miss Lenroot has been designated as alternate for

Mr. Altmeyer on the Social Commission. Jane Hoey, Director of the Bureau of Public Assistance, through arrangements made by the State Department and the French Embassy, represented the Federal Security Agency at the Paris meeting of the World Congress on Family and Population.

The development of social policy which is involved in the foreign policy of the United States was facilitated during the past year through the establishment by the State Department of an Interdepartmental Committee on International Social Policy with six subcommittees to give consideration to major international policy questions that fall within the scope of several Federal agencies. Mr. Altmeyer is the Federal Security Agency representative on the Subcommittee on Social Welfare, of which he is Chairman. During his absence in Geneva, Jane Hoey, Director of the Bureau of Public Assistance, served for him. Another staff member serves as the Federal Security Agency representative on the Subcommittee on Labor.

The services of staff members were requested and made available to international organizations and to the United States Military Governments for varying periods of time. Mr. Altmeyer was on temporary leave from the Administration to serve as Executive Secretary of the Preparatory Commission for the International Refugee Organization in Geneva, Switzerland, a position to which he was unanimously elected by the representatives of the 11 Member Governments serving as the Preparatory Commission. As Executive Secretary, Mr. Altmeyer's chief responsibility has been to set up the organization of the new refugee agency and to prepare for its assumption of the displaced persons program when the UNRRA program terminated. Dr. Martha Eliot, Associate Chief of the Children's Bureau, was on leave for several weeks to work with the International Children's Emergency Fund; she visited a number of European countries in connection with developing technical data for use in planning that program. At the request of the War Department, two members of the staff have been on leave to give expert assistance in social insurance administration to the United States Military Government in Germany, and one person was released for similar work in Japan.

Bureaus and Offices

Most of the functions of the Social Security Administration relating to the four chief programs for which it is responsible are carried on by the Bureaus of Old-Age and Survivors Insurance, Employment Security, and Public Assistance, and the Children's Bureau. Functions relating to two or more programs or to the more general aspects of social security are assigned, in general, to service bureaus and offices.

The Bureau of Research and Statistics conducts the basic studies necessary to analyze aspects of social security that are outside the immediate scope of any other bureau. It arranges for interbureau cooperation on joint analytical problems. Its activities are concentrated on the over-all financial and economic aspects of the several programs; the relation of these programs to other social security and related measures; and the development of findings and recommendations on the most effective methods of providing social security through social insurance, with particular reference to unmet needs for protection during illness and disability.

The Office of the Actuary advises the Commissioner and the staff of the Administration on technical and long-range factors involved in determining costs of present and proposed measures for social security.

The Bureau of Accounts and Audits maintains the Administration's system of accounts covering all funds budgeted, appropriated, collected, or disbursed. Its field staff conducts audits of State public assistance expenditures and of administrative expenditures of State employment security agencies; furnishes constructive accounting services to State public assistance agencies; and reviews the fiscal aspects of State public assistance plans and State requests for Federal funds under such plans.

Informational activities for programs are centered in the Informational Service, which seeks, in the interest of efficient and economical administration, to keep people informed of their rights and obligations under Federal old-age and survivors insurance and to aid State agencies in developing similar awareness among individuals of their rights under unemployment insurance and public assistance programs.

The Office of Appeals Council, which is independent of the Bureau of Old-Age and Survivors Insurance, hears and reviews appeals on claims for wage credits, monthly benefits, and lump-sum payments under the Federal system of old-age and survivors insurance.

The budgetary, personnel, business management, library, training, and publications services of the Administration are directly responsible to the Deputy Commissioner.

Regional and Field Organization

To achieve efficient administration and individualized services, operations of the Social Security Administration are decentralized to provide local and regional services to workers covered by old-age and survivors insurance, to claimants for benefits under that program, and to State agencies administering programs under the Social Security Act. The continental United States and the Territories of Alaska and Hawaii have been divided into 13 regions. The staff in each region is under the supervision of a regional director, who is directly responsible to the Commissioner and Deputy Commissioner for the efficient administration of the programs within the region, including satisfactory Federal-State relationships and public relations activities. Except in the two Territories, the regional-office personnel include representatives of the program bureaus and of certain service bureaus and offices, as well as staff to furnish personnel and business management services to the regional office and the field offices of the Bureau of Old-Age and Survivors Insurance. The representatives of that Bureau supervise the activities of the field offices concerned with operations of that program. Representatives of the Children's Bureau and the Bureaus of Employment Security and Public Assistance advise and assist State agencies on matters relating to the programs for which those bureaus have Federal responsibility. Regional auditors, regional attorneys of the Office of General Counsel of the Federal Security Agency, and personnel representatives of the State Technical Advisory Service on merit-system administration provide the appropriate specialized assistance to regional directors, representatives of the program bureaus, and State agencies.

Merit Systems of Personnel Administration in the States

Personnel administration in State unemployment insurance, public assistance, and child health and welfare programs is based on merit-system principles. Under these principles, personnel are selected for employment by competitive examination, and their prospects for tenure and advancement depend upon their performance on the job. This protection of the public interest, as well as that of the employee, stems directly from the provisions of the Social Security Act. The Social Security Administration, through its State Technical Advisory Service, provides technical services and consultation as well as review of operations implementing the merit-system clauses in State laws.

The original standards of personnel administration established under the act were of necessity relaxed during the war, and some of the emergency conditions, such as a stringent labor market, still continue to a certain extent. Nevertheless the State governments made substantial advances during the past year toward normal merit-system administration. Realistic classification of positions gained ground, and pay plans were made more nearly equitable and brought more closely into line with State practice generally. Open competitive examinations were held extensively, to establish lists from which the best-qualified persons can be selected for probationary appointment. These probationary appointees, many of whom are veterans, are replacing persons taken on for the duration of the war.

Most of the States still face, and need help on, many continuing personnel problems. To ensure effective social security administration now and in the future, the States must build a career system despite the difficulties of recruitment and staff turn-over. They must solve continuing problems as to the proper classification and pay of employees. They must face issues affecting veterans and others seeking competitive appointment. They must establish personnel procedures that, properly applied, will weed out the incompetent and assure the retention of the competent. At no time since Congress first required merit-system administration for social security programs have the State agencies shown greater interest in sound policies and practices governing the selection and development of their personnel.

Among Federal bureaus or agencies administering Federal-State programs, progress in setting up uniform standards for State personnel administration has also been made, both among the different units of the Social Security Administration and among the constituent members of the Federal Security Agency. This trend toward uniformity, with its clear gain for the State agencies, received increased impetus from congressional action as reflected in the language of the 1947 Labor-Federal Security Appropriation Act calling for consistent standards for personnel administration as between the social security programs (Federal Security Agency) and the U. S. Employment Service (Labor Department). Common understanding with respect to basic merit-system standards was reached by the two agencies, and appropriate documentation of the conclusions affecting the return of the public employment services to the States was released to the States by the U. S. Employment Service. The 1948 Labor-Federal Security Appropriation Act calls for the issuance of joint personnel standards and methods by the two Federal agencies concerned.

Appropriations and Expenditures

Regular and supplementary appropriations and transfers and allotments to the Social Security Administration for the fiscal year 1947 totaled $754.2 million (table 2). Of this sum, $715.9 million was for grants to States for unemployment insurance administration, public assistance, maternal and child health services, services for crippled children, child welfare services, and the emergency maternity and infant care program; the balance was for administrative expenses of the Administration in connection with the operation of these programs and old-age and survivors insurance. Total available funds were greater by $178.3 million than the amount appropriated or allotted for these programs for the fiscal year 1946. Of this difference, $170.4 million represented a net increase in appropriations for grants to the States and $7.9 million an increase for administrative expenses.

Expenditures totaled $742.4 million in the fiscal year 1947, compared with $575.0 million in the preceding fiscal year. Grants certified to States for public assistance increased by $174.7 million; for maternal and child health services, $5.0 million; for services for crippled children, $3.6 million; for child welfare services, $2.0 million; and for unemployment insurance administration, $1.6 million. While amounts expended in grants for the regular programs increased, the grants for the war emergency program for maternity and infant care were $27.1 million less than in the previous year. Most of the increase in grants came from the 1946 amendments to the public assistance and child welfare and health provisions of the Social Security Act. The increase of $7.6 million in administrative expenses was mainly to cover the larger work load in old-age and survivors insurance and the higher salary rates provided in the Federal Employees Pay Act of 1946. About $32 million of the $37.8 million expended for administrative costs was directly appropriated from the Federal old-age and survivors insurance trust fund or transferred from that fund to the Treasury.

During the latter part of the fiscal year 1947, Congress considered the 1948 appropriation estimates for the Social Security Administration. The rather severe reductions in estimates which were made by the House, some of which were partially canceled by the Senate, necessitated changes in the Administration's staffing and operating plans for the coming year. The Bureau of Employment Security, the Children's Bureau, and the bureaus and offices included in the central "Consolidated Operations" appropriation were faced with the prospect of having to operate in the fiscal year 1948 on budgets that would not be sufficient to maintain the existing staff, much less provide for any increase in staff to correspond to the increase in work load in 1948. Consequently, immediate staff reductions were made in the months of April, May, and June so that the bureaus and offices concerned would start the new fiscal year with approximately the number of employees that could be maintained throughout the fiscal year. The action taken by Congress forced the curtailment or discontinuance of many desirable functions and services and will necessitate the shouldering of increased responsibilities by the remaining staff to ensure the fulfillment of the Administration's statutory obligations.

Personnel

The Administration had 12,830 employees as of June 30, 1947; 6,176 were in departmental offices and 6,654 in regional, field, and area offices. On July 31, 1946, the month the Administration was established, the total was 11,686. The increase of 1,144 is a net figure resulting from an increase of 1,532 in the staff of the program bureaus and a decrease of 388 or 30 percent in the staff of the service bureaus. Additional staff in the program bureaus was needed to take care of the additional work under the legislation enacted in 1946, which brought about substantive changes in all the programs and expanded the relationships with the Railroad Retirement Board, and also to cope with the increase in volume of wage records and claims under old-age and survivors insurance.

During the fiscal year, 736 ex-servicemen and women claimed their reemployment rights and were restored. As of June 30, 1947, more than 400 employees were still on military furlough and about 2,000 former employees who transferred to other agencies or to private industry with reemployment rights had not yet exercised those rights. About three-fourths of all the men who were taken on the staff for the first time during the year were veterans.

The return of the ex-servicemen and women and of other former employees with reemployment rights, reductions in some parts of the organization because of decreased appropriations for the next fiscal year, and the gradual replacement of war service by permanent personnel caused substantial readjustments in staff during 1946–47. The resulting situation intensified the Administration's continued emphasis on economies and simplification of operating procedures. The objective in personnel management was to stabilize the staff as rapidly as possible and to find ways of stimulating individual performance and understanding of the tasks ahead.

APPENDIX

Regional and Field Organization as of June 30, 1947

REGION I. Regional Director: John F. Hardy, Social Security Administration, 120 Boylston Street, Boston 16, Mass.

Connecticut: 9 field offices—Bridgeport, Hartford, Meriden, New Britain, New Haven, New London, Stamford, Torrington, Waterbury; 1 branch office—Willimantic.

Maine: 4 field offices—Augusta, Bangor, Lewiston, Portland.

Massachusetts: 21 field offices—Attleboro, Boston (2), Brockton, Cambridge, Chelsea, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Lowell, Lynn, Malden, New Bedford, Pittsfield, Quincy, Salem, Springfield, Waltham, Worcester; 1 branch office—Dorchester.

New Hampshire: 5 field offices—Concord, Littleton, Manchester, Nashua,[1] Portsmouth.

Rhode Island: 3 field offices—Pawtucket, Providence, Woonsocket; 1 branch office—Newport.

Vermont: 3 field offices—Burlington, Montpelier, Rutland.

Itinerant service stations—110.

REGION II–III. Regional Director: Peter Kasius, Social Security Administration, 11 West Forty-second Street, New York 18, N. Y.

Delaware: 1 field office—Wilmington.

New Jersey: 10 field offices—Atlantic City, Bridgeton, Camden, Elizabeth, Jersey City, Newark, Passaic, Paterson, Perth Amboy, Trenton.

New York: 37 field offices—Albany, Auburn, Binghamton, Brooklyn (4),[2] Buffalo, Elmira, Glens Falls, Gloversville, Jamaica, Jamestown, Kingston, Long Island City, Newburgh, New Rochelle, New York City (Bronx, 2; Manhattan, 4), Niagara Falls, Ogdensburg, Oswego,[1] Patchogue, Plattsburg,[1] Poughkeepsie, Rochester, Schenectady, Staten Island, Syracuse, Troy, Utica, Watertown, Yonkers.

Pennsylvania: 29 field offices—Allentown, Altoona, Ambridge, Braddock, Chester, Du Bois, Easton, Erie, Greensburg, Harrisburg, Hazleton, Johnstown, Lancaster, McKeesport, New Castle, New Kensington, Norristown, Oil City, Philadelphia (3), Pittsburgh, Pottsville, Reading, Scranton, Uniontown, Wilkes-Barre, Williamsport, York.

Itinerant service stations—199.

REGION IV. Regional Director: Lavinia Engle, Social Security Administration, DeMoll Building, 700 Twelfth Street NW., Washington 25, D. C.

District of Columbia: 1 field office—Washington.

Maryland: 4 field offices—Baltimore, Cumberland, Hagerstown, Salisbury.

North Carolina: 13 field offices—Asheville, Charlotte, Durham, Fayetteville, Gastonia, Greensboro, Hickory, High Point, Raleigh, Rocky Mount, Salisbury, Wilmington, Winston-Salem.

Virginia: 11 field offices—Alexandria, Bristol, Danville, Lynchburg, Newport News, Norfolk, Petersburg, Richmond, Roanoke, Staunton, Winchester.[1]

West Virginia: 9 field offices—Beckley, Bluefield, Charleston, Clarksburg, Huntington, Logan, Morgantown, Parkersburg, Wheeling.

Itinerant service stations—166.

REGION V. Regional Director: Mary E. Woods, Social Security Administration, Room 400, 1100 Chester Avenue, Cleveland 14, Ohio

Kentucky: 10 field offices—Ashland, Bowling Green, Corbin, Covington, Frankfort, Hazard, Lexington, Louisville, Owensboro, Paducah.

Michigan: 18 field offices—Battle Creek, Bay City, Dearborn, Detroit (3), Escanaba, Flint, Grand Rapids, Jackson, Kalamazoo, Lansing, Marquette, Muskegon, Pontiac, Port Huron, Saginaw, Traverse City.

---

[1] Opened during fiscal year 1946–47.

[2] One opened during fiscal year 1946–47.

Ohio: 21 field offices—Akron, Ashtabula, Canton, Cincinnati, Cleveland (3), Columbus, Dayton, Hamilton, Lima, Lorain, Mansfield, Marion, Portsmouth, Springfield, Steubenville, Toledo, Warren, Youngstown, Zanesville.

Detached official stations—1; *itinerant service stations*—227.

REGION VI. Regional Director: Robert W. Beasley, Social Security Administration, Room 2200, 188 West Randolph Street, Chicago 1, Ill.

Illinois: 26 field offices—Aurora, Bloomington, Champaign, Chicago (7),[3] Cicero, Danville, Decatur, East St. Louis, Evanston, Harrisburg, Harvey, Joliet, Mount Vernon, Oak Park, Peoria, Quincy, Rockford, Rock Island, Springfield, Waukegan; 1 branch office—Galesburg.

Indiana: 15 field offices—Anderson, Bloomington, Elkhart, Evansville, Fort Wayne, Gary, Hammond, Indianapolis, Kokomo, La Fayette, Muncie, New Albany, Richmond, South Bend, Terre Haute.

Wisconsin: 13 field offices—Eau Claire, Fond du Lac, Green Bay, Janesville, Kenosha,[4] La Crosse, Madison, Milwaukee, Oshkosh, Racine, Sheboygan, Superior, Wausau.

Itinerant service stations—248.

REGION VII. Regional Director: Richard H. Lyle, Social Security Administration, 441 West Peachtree Street, Atlanta 3, Ga.

Alabama: 8 field offices—Anniston, Birmingham, Decatur, Dothan, Gadsden, Mobile, Montgomery, Tuscaloosa.

Florida: 9 field offices—Gainesville, Jacksonville, Miami, Orlando, Pensacola, St. Petersburg, Tallahassee, Tampa, West Palm Beach.

Georgia: 10 field offices—Albany, Athens, Atlanta, Augusta, Columbus, La Grange, Macon, Rome, Savannah, Waycross.

Mississippi: 7 field offices—Columbus, Greenwood, Gulfport, Hattiesburg, Jackson, Meridian, Vicksburg.

South Carolina: 7 field offices—Charleston, Columbia, Florence, Greenville, Greenwood, Rock Hill, Spartanburg.

Tennessee: 8 field offices—Chattanooga, Columbia, Dyersburg, Jackson, Johnson City, Knoxville, Memphis, Nashville.

Detached official stations—1; *itinerant service stations*—360.

REGION VIII. Regional Director: Chester B. Lund, Social Security Administration, Midland Bank Building, Fourth Street and Second Avenue, Minneapolis 1, Minn.

Iowa: 9 field offices—Cedar Rapids, Davenport, Des Moines, Dubuque, Fort Dodge, Mason City, Ottumwa, Sioux City, Waterloo.

Minnesota: 8 field offices—Albert Lea, Bemidji, Duluth, Minneapolis, Redwood Falls, St. Cloud, St. Paul, Winona.

Nebraska: 5 field offices—Grand Island, Lincoln, North Platte, Omaha, Scottsbluff.

North Dakota: 4 field offices—Bismarck, Fargo, Grand Forks, Minot.

South Dakota: 4 field offices—Aberdeen, Huron, Rapid City, Sioux Falls.

Itinerant service stations—135.

REGION IX. Regional Director: Ed McDonald, Social Security Administration, Room 400, Fidelity Building, 911 Walnut Street, Kansas City 6, Mo.

Arkansas: 7 field offices—El Dorado, Fort Smith, Hot Springs, Jonesboro, Little Rock, Pine Bluff, Texarkana.

Kansas: 8 field offices—Dodge City, Hutchinson, Independence, Kansas City, Pittsburg, Salina, Topeka, Wichita.

Missouri: 11 field offices—Cape Girardeau, Clayton, Hannibal, Jefferson City, Joplin, Kansas City, St. Joseph, St. Louis (2), Sedalia,[4] Springfield.

Oklahoma: 7 field offices—Ardmore, Enid, Lawton, McAlester, Muskogee, Oklahoma City, Tulsa.

Detached official stations—3; *itinerant service stations*—246.

---

[3] Two opened during fiscal year 1946–47.

[4] Opened during fiscal year 1946–47.

REGION X. Regional Director: James B. Marley, Social Security Administration, North Presa and East Houston Streets, San Antonio 5, Tex.

Louisiana: 6 field offices—Alexandria, Baton Rouge, Lake Charles, Monroe, New Orleans, Shreveport.
New Mexico: 2 field offices—Albuquerque, Roswell; 1 branch office—Santa Fe.
Texas: 20 field offices—Abilene, Amarillo, Austin, Beaumont, Brownsville, Corpus Christi, Dallas, El Paso, Fort Worth, Galveston, Houston, Lubbock, Lufkin, Paris, Port Arthur,[5] San Angelo, San Antonio, Tyler, Waco, Wichita Falls.

Itinerant service stations—151.

REGION XI. Regional Director: Heber R. Harper, Social Security Administration, 321 Equitable Building, 730 Seventeenth Street, Denver 2, Colo.

Colorado: 6 field offices—Colorado Springs, Denver, Grand Junction, Greeley, Pueblo, Trinidad.[5]
Idaho: 4 field offices—Boise, Lewiston,[6] Pocatello, Twin Falls.
Montana: 5 field offices—Billings, Butte, Great Falls, Helena, Missoula.
Utah: 3 field offices—Ogden, Provo,[5] Salt Lake City.
Wyoming: 3 field offices—Casper, Cheyenne, Rock Springs.

Detached official stations—6; *itinerant service stations*—100.

REGION XII. Regional Director: Oscar M. Powell, Social Security Administration, Room 439, Federal Office Building, Civic Center, San Francisco 2, Calif.

Arizona: 3 field offices—Flagstaff, Phoenix, Tucson; 1 branch office—Prescott.
California: 22 field offices—Bakersfield, Eureka, Fresno, Glendale, Hollywood, Huntington Park, Inglewood,[5] Long Beach, Los Angeles, Oakland, Pasadena, Redding, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, San Mateo, Santa Barbara, Santa Monica, Santa Rosa, Stockton.
Nevada: 2 field offices—Las Vegas, Reno.
Oregon: 5 field offices—Eugene, Klamath Falls, La Grande, Portland, Salem.
Washington: 7 field offices—Aberdeen,[5] Bellingham, Olympia, Seattle, Spokane, Tacoma, Yakima.

Itinerant service stations—108.

REGION XIII. Regional Director: Hugh J. Wade, Social Security Administration, Territorial Building, P. O. Box 1331, Juneau, Alaska.

REGION XIV. Regional Director: Harold S. Burr, Social Security Administration, 225 Dillingham Building, Honolulu 16, Hawaii.

Hawaii: 1 field office—Honolulu.

Detached official stations—2; *itinerant service stations*—2.

AREA OFFICES

Third Avenue and Twenty-third Street, North, Birmingham 3, Ala.;[5] 188 West Randolph Street, Chicago 1, Ill.; 2605 Walnut Street, Kansas City 8, Mo.; 260 East One Hundred and Sixty-first Street, New York 51, N. Y.; United States Customhouse, Philadelphia 6, Pa.; 22 Battery Street, San Francisco 11, Calif.

---

[5] Opened during fiscal year 1946–47.
[6] Under supervision of Region XII.

TABLE 1.—*Social Security Administration: Personnel, salaries, travel, and general expenses, by Bureau or Office, fiscal year 1946–47*

Bureau or Office	Personnel, June 30, 1947			Expenses, fiscal year 1946–47 (in thousands)			
	Total	Departmental	Field	Total	Salaries	Travel	General expenses
Total	12,830	6,176	6,654	$37,816	$32,750	$1,066	$4,000
Office of the Commissioner	289	278	11	1,479	1,306	30	[1] 143
Office of the Actuary	14	14	0	61	60	1	(2)
Office of Appeals Council	34	11	23	195	172	23	(2)
Regional Offices	292	----------	292	1,235	950	17	268
Bureau of Old-Age and Survivors Insurance	11,156	5,146	6,010	30,576	26,774	575	3,227
Bureau of Employment Security	230	184	46	1,059	962	63	34
Bureau of Public Assistance	270	176	94	1,195	1,102	78	15
Children's Bureau	289	214	75	541	140	177	224
Bureau of Research and Statistics	52	52	0	284	267	2	15
Bureau of Accounts and Audits	184	86	98	907	819	85	3
Informational Service	20	15	5	284	198	15	71

[1] Includes amounts for the Office of the Actuary and the Office of Appeals Council.
[2] Included in the amount for the Office of the Commissioner.

TABLE 2.—*Social Security Administration: Appropriations and expenditures, fiscal years 1945–46 and 1946–47* [1]

[In thousands; data as of June 30, 1947]

Item	Appropriations [2]		Expenditures [3]	
	1946–47	1945–46	1946–47	1945–46
Total	$754,207	$575,857	$742,400	$575,013
Grants to States	715,874	545,424	704,584	544,832
Unemployment insurance administration	[4] 58,109	[4] 57,042	[5] 58,004	[5] 56,450
Old-age assistance	[6] 619,101	[6] 439,132	491,091	368,524
Aid to dependent children			108,429	60,126
Aid to the blind			14,312	10,482
Maternal and child health services	[7] 11,000	5,820	10,827	5,820
Services for crippled children	[7] 7,500	3,870	7,478	3,870
Child welfare services	[7] 3,500	1,510	3,490	1,510
Emergency maternity and infant care	16,664	38,050	10,953	38,050
Administrative expenses	38,333	30,433	37,816	30,181
Salaries	33,207	26,092	32,750	26,010
Travel	899	838	1,066	763
General expenses	4,227	3,503	4,000	3,408

[1] In order to permit comparison of 1946–47 data for the Social Security Administration with data for comparable functions in the preceding year, 1945–46 figures include the Children's Bureau.
[2] Includes regular and deficiency appropriations and transfer appropriation warrants; intra-agency allotments and transfers for administrative expenses; transfers from the old-age and survivors insurance trust fund; and recoveries from public assistance recipients or their estates (see footnote 6). Excludes transfers from the Department of Labor (see footnote 4).
[3] Obligations against funds available for fiscal year for grants to States and expenditures for administration, including amounts for administering title II of the Social Security Act transferred from the old-age and survivors insurance trust fund or reimbursed to the general fund of the Treasury from the trust fund.
[4] Excludes $881,004 for 1946–47 and $1,078,965 for 1945–46 transferred from the Labor Department to reimburse States for facilities and services furnished to the U. S. Employment Service in excess of the amount of facilities and services furnished by the USES to the State agencies.
[5] Excludes expenditures from transfers described in footnote 4.
[6] Includes recoveries of $100,501 in 1946–47 and $87,435 in 1945–46.
[7] Maximum grants authorized by the Social Security Act Amendments of 1946; actual appropriations were $12,705,000, $8,467,500, and $4,127,500.

TABLE 3.—*Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1945–47*

[In millions]

Item	1946–47	1945–46	1944–45
Contributions collected under:			
Federal Insurance Contributions Act [1]	$1,459	$1,238	$1,310
Federal Unemployment Tax Act [2]	185	180	185
State unemployment insurance laws [3] [4]	1,002	1,009	1,252
Old-age and survivors insurance trust fund:			
Receipts, total	1,623	1,386	1,434
Appropriations [5]	1,459	1,238	1,310
Interest	163	148	124
Expenditures, total	466	358	267
Monthly benefits and lump-sum payments [6]	426	321	240
Administration [7]	41	37	27
Assets, end of year	8,798	7,641	6,613
State accounts in the unemployment trust fund:			
Receipts, total	1,137	1,140	1,369
Deposits [4]	1,005	1,010	1,256
Interest	131	130	113
Withdrawals for benefit payments	818	1,129	70
Assets, end of year	7,010	6,691	6,679

---

[1] 1-percent tax paid by employers and by employees on wages up to and including $3,000 a year.

[2] Tax paid only by employers of 8 or more. Employers offset against this tax—up to 90 percent of the amount assessed—contributions which they have paid under State unemployment insurance laws or full amount they would have paid if they had not been allowed reduced contribution rates under State experience-rating provisions. Rate is 3 percent of first $3,000 a year of wages paid to each employee by subject employer; because of credit offset, effective rate is 0.3 percent of such wages.

[3] Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies; corrected to July 1947.

[4] Contributions and deposits by States differ slightly, primarily because of time lag in making deposits.

[5] Equal to amounts collected under the Federal Insurance Contributions Act.

[6] Checks-paid basis.

[7] Figures do not reflect actual expenses in the respective years because of bookkeeping adjustments.

Source: Compiled from *Daily Statement of the U. S. Treasury* and State agency reports.

TABLE 4.—*Old-age and survivors insurance: Number of families and beneficiaries in receipt of benefits and average monthly benefit in current-payment status, by family group, end of June, 1947 and 1946*

[In thousands, except for average benefit; based on 20-percent sample; data corrected to Sept. 4, 1947]

Family classification of beneficiaries [1]	June 30, 1947			June 30, 1946		
	Number of families	Number of beneficiaries	Average monthly amount per family	Number of families	Number of beneficiaries	Average monthly amount per family
Total	1,228.7	1,832.3		990.2	1,502.1	
Retired-worker families	797.9	1,063.6		632.0	841.3	
Worker only	537.8	537.8	$24.10	426.8	426.8	$23.80
Male	434.4	434.4	25.10	342.1	342.1	24.80
Female	103.4	103.4	19.70	84.7	84.7	19.60
Worker and wife	245.3	490.6	39.20	193.1	386.2	38.80
Worker and 1 child	9.6	19.2	37.40	8.2	16.4	37.00
Worker and 2 or more children	5.1	15.6	47.90	3.8	11.5	47.00
Worker, wife, and 1 or more children	.1	.4	(2)	.1	.4	(2)
Survivor families	430.8	768.7		358.2	660.8	
Aged widow only	146.1	146.1	20.30	110.2	110.2	20.20
Widowed mother only [3]	4.0	4.0	20.00	4.9	4.9	19.70
Widowed mother and 1 child	68.7	137.4	35.00	65.8	131.6	34.30
Widowed mother and 2 children	39.3	118.0	48.70	37.2	111.6	48.00
Widowed mother and 3 or more children	22.7	92.4	51.80	20.8	84.6	50.90
1 child only	75.0	75.0	13.10	59.4	59.4	13.00
2 children	33.5	66.9	25.40	26.5	53.0	24.80
3 children	13.7	41.1	35.80	11.2	33.6	35.00
4 or more children	19.5	78.8	47.00	16.0	65.2	46.60
1 aged parent	7.6	7.6	13.30	5.7	5.7	13.20
2 aged parents	.7	1.5	26.00	.5	1.0	25.20

---

[1] As defined by beneficiaries in current-payment status.

[2] No average shown because too few cases in sample.

[3] Benefits of child or children were being withheld.

TABLE 5.—*Old-age and survivors insurance: Selected data on benefits and wage credits, by State, for specified periods, 1945–47*

[In thousands, except for average wage credits; data corrected to Sept. 4, 1947]

State [1]	Monthly benefits in current-payment status, end of fiscal year		Payments certified, fiscal year			Workers with wage credits, calendar year [4]	Amount of wage credits, calendar year [5]		Employee accounts established, fiscal year	Employers reporting taxable wages, July–September [6]
	Number	Amount	Total [2]	Monthly benefits	Lump-sum payments [3]		Total	Average per worker		
1944–45 [7]	1,106.0	$20,163	$250,638	$224,751	$25,863	46,296	$63,363,000	$1,369	3,979	2,038
1945–46 [7]	1,502.1	28,211	337,061	311,017	26,029	46,392	62,000,000	1,336	2,953	2,176
1946–47 [7]	1,832.3	35,071	434,767	406,252	28,501	49,500	67,800,000	1,370	2,898	2,440
Ala	27.1	407	5,234	4,912	322	753	693,772	921	63	29
Alaska	.7	13	119	104	15	54	52,689	976	2	2
Ariz	6.2	110	1,321	1,239	82	201	179,725	894	14	9
Ark	13.0	189	2,253	2,121	132	390	239,258	613	36	20
Calif	131.9	2,710	31,592	29,481	2,111	4,177	5,143,676	1,231	187	177
Colo	13.4	252	2,934	2,727	207	400	342,934	857	28	24
Conn	36.2	782	9,761	9,144	617	880	1,386,289	1,575	36	38
Del	4.7	96	1,205	1,135	70	147	201,852	1,373	5	6
D. C	7.2	138	1,890	1,752	138	348	345,442	993	21	16
Fla	31.0	570	7,222	6,863	359	819	649,441	793	53	44
Ga	26.3	383	4,817	4,468	349	891	736,821	827	72	37
Hawaii	4.6	79	897	856	41	125	152,717	1,222	15	7
Idaho	4.8	84	946	883	63	147	122,586	834	12	10
Ill	115.0	2,319	30,547	28,176	2,371	3,700	4,869,385	1,316	160	174
Ind	51.7	975	11,957	11,258	699	1,471	1,725,753	1,173	73	60
Iowa	23.5	412	5,034	4,723	311	622	563,612	906	51	47
Kans	17.6	305	3,957	3,755	202	518	491,316	948	32	34
Ky	29.1	467	5,804	5,480	324	688	646,560	940	55	30
La	20.6	329	4,063	3,770	293	714	667,106	934	50	26
Maine	16.8	307	3,598	3,409	189	328	316,361	965	22	18
Md	26.6	501	6,102	5,638	464	816	947,569	1,161	38	31
Mass	90.1	1,861	21,796	20,429	1,367	1,954	2,426,011	1,242	76	85
Mich	81.9	1,641	20,748	19,304	1,444	2,381	3,723,330	1,564	122	102
Minn	27.9	538	6,689	6,248	441	811	900,549	1,110	61	50
Miss	10.7	145	1,688	1,562	126	363	240,139	662	47	19
Mo	44.1	825	10,270	9,529	741	1,391	1,456,898	1,047	72	69
Mont	5.8	111	1,332	1,229	103	141	142,352	1,010	11	12
Nebr	9.7	169	1,970	1,833	137	315	295,246	937	25	24
Nev	1.5	29	370	334	36	65	53,414	822	3	4
N. H	10.0	187	2,189	2,060	129	199	195,886	984	13	11
N. J	77.1	1,637	20,413	19,085	1,328	1,921	2,693,122	1,402	80	94
N. Mex	3.5	54	628	587	41	134	88,244	659	13	9
N. Y	218.6	4,440	57,648	53,818	3,830	6,767	9,393,879	1,388	347	350
N. C	30.6	445	5,612	5,238	374	992	816,145	823	82	36
N. Dak	2.4	40	482	447	35	91	62,420	686	14	9
Ohio	120.3	2,418	29,457	27,453	2,004	3,140	4,233,221	1,348	136	127
Okla	16.9	286	3,337	3,131	206	597	557,675	934	40	32
Oreg	23.6	464	5,104	4,792	312	574	628,477	1,095	25	27
Pa	181.5	3,619	45,881	43,289	2,592	3,959	5,465,150	1,380	181	156
R. I	15.9	321	4,240	4,004	236	325	426,462	1,312	13	15
S. C	16.0	220	2,777	2,543	234	499	384,017	770	44	20
S. Dak	3.2	55	676	621	55	107	73,462	687	12	10
Tenn	25.4	386	4,908	4,568	340	956	823,322	861	65	36
Tex	52.6	857	10,390	9,558	832	2,142	2,101,012	981	161	116
Utah	6.7	120	1,434	1,351	83	187	188,469	1,008	14	9
Vt	5.5	101	1,154	1,104	50	113	108,233	958	8	7
Va	30.0	495	6,002	5,599	403	823	779,938	948	63	40
Wash	35.8	740	8,218	7,724	494	962	1,131,163	1,176	37	40
W. Va	28.6	496	6,087	5,800	287	601	654,369	1,089	39	25
Wis	40.9	796	10,147	9,516	631	1,129	1,407,473	1,247	63	62
Wyo	2.2	41	475	439	36	87	75,058	863	6	5
Foreign	5.4	109	1,378	1,164	214					

---

[1] State distribution estimated, except for monthly benefits in current-payment status and for employee accounts established.

[2] United States totals include lump-sum payments under the 1935 act, not distributed by State, amounting to $24,000 in 1944–45, $15,000 in 1945–46, and $13,000 in 1946–47.

[3] Under the 1939 and 1946 amendments. For lump-sum payments under the 1935 act, see footnote 2.

[4] United States totals represent number of different workers employed in covered industries at some time during 1944, 1945, and 1946, respectively. State data represent workers employed in the State at some time during 1945; workers employed in more than 1 State counted once in each of the States in which employed.

[5] United States totals are for 1944, 1945, and 1946, respectively. State data represent 1945 wage credits, distributed according to the State where wages were paid.

[6] Employer returns for July–September 1944, 1945, and 1946, respectively. A return may relate to more than 1 establishment if the employer operates several establishments but reports for the concern as a whole.

[7] See column heads for period to which data relate.

TABLE 6.—*Old-age and survivors insurance: Benefits in current-payment status, payments certified, and workers with wage credits, for specified periods, 1945–47*

[Corrected to Sept. 4, 1947]

Item	Fiscal year		
	1946–47	1945–46	1944–45
Benefits in current-payment status (end of period):			
Number	1,832,285	1,502,085	1,106,002
Primary	797,927	632,038	430,723
Wife's	245,364	193,241	132,155
Child's	499,246	431,202	348,413
Widow's	146,124	110,168	81,500
Widow's current	134,673	128,688	107,597
Parent's	8,951	6,748	5,614
Total monthly amount	$35,071,472	$28,210,828	$20,162,831
Primary	19,722,150	15,443,266	10,310,626
Wife's	3,206,007	2,496,588	1,680,602
Child's	6,328,004	5,391,169	4,324,073
Widow's	2,965,620	2,225,871	1,642,415
Widow's current	2,730,446	2,565,790	2,131,699
Parent's	119,245	88,144	73,416
Average monthly amount:			
Primary	$24.72	$24.43	$23.94
Wife's	13.07	12.92	12.72
Child's	12.68	12.50	12.41
Widow's	20.30	20.20	20.15
Widow's current	20.27	19.94	19.81
Parent's	13.32	13.06	13.08
Payments certified during period:			
Monthly benefits	$406,252,133	$311,017,291	$224,751,610
Primary	225,415,715	164,245,802	114,587,797
Supplementary	39,418,948	28,750,454	20,218,139
Survivor	141,417,470	118,021,035	89,945,674
Lump-sum payments	28,514,686	26,043,831	25,886,565
1939 and 1946 amendments	28,501,374	26,028,847	25,862,633
1935 act	13,312	14,984	23,932
Estimated number of living workers with wage credits (mid-point of period—Jan. 1):[1]			
Total	75,500,000	73,200,000	70,200,000
Fully insured	34,700,000	33,300,000	31,900,000
Currently but not fully insured	6,700,000	7,000,000	6,800,000
Uninsured	34,100,000	32,900,000	31,500,000

[1] Not adjusted to reflect changes in insured status arising from (1) combined earnings under coordinated survivor provisions of old-age and survivors insurance programs, and (2) veterans deemed to be fully insured only under sec. 210 of title II of the Social Security Act, as amended in 1946.

TABLE 7.—*Unemployment insurance: Selected data on benefits, claims, employment, and finance, by State, for specified periods, 1945–47*

[Corrected to Aug. 15, 1947]

State	Beneficiaries,[1] fiscal year	Benefit payments, fiscal year			Weeks compensated, fiscal year (in thousands)	Initial claims,[4] fiscal year (in thousands)	Workers with wage credits,[5] calendar year (in thousands)	Employers subject to State law, end of fiscal year (in thousands)	Funds available for benefits, end of fiscal year[6] (in millions)	Federal grants for administration,[7] fiscal year (in thousands)
		Total amount[2] (in thousands)	Average weekly benefit for total unemployment	Ratio of benefits[2] to collections[3] (percent)						
1944–45[8]	594,363	$71,209	$16.70	5.7	4,447	1,688	43,000	903	$6,685	$29,785
1945–46[8]	5,310,552	1,091,062	18.74	108.2	58,960	10,840	43,000	1,139	6,733	56,059
1946–47[8]	4,059,624	833,718	18.05	83.2	46,907	9,559	[9] 45,800	[10] 1,269	7,031	[11] 56,606
Ala	47,473	8,853	15.27	130.0	587	102	681	8	56	709
Alaska	2,296	450	20.32	29.6	22	2	43	2	10	111
Ariz	7,534	892	14.04	25.7	64	28	213	6	23	257
Ark	35,763	3,821	12.83	71.3	300	67	395	24	33	506

See footnotes at end of table.

TABLE 7.—*Unemployment insurance: Selected data on benefits, claims, employment, and finance, by State, for specified periods, 1945–47*—Continued

State	Beneficiaries,[1] fiscal year	Benefit payments, fiscal year			Weeks compensated, fiscal year (in thousands)	Initial claims,[4] fiscal year (in thousands)	Workers with wage credits,[5] calendar year (in (thousands)	Employers subject to State law, end of fiscal year (in (thousands)	Funds available for benefits, end of fiscal year [6] (in millions)	Federal grants for administration,[7] fiscal year (in thousands)
		Total amount [2] (in thousands)	Average weekly benefit for total unemployment	Ratio of benefits [2] to collections[3] (percent)						
Calif	523,059	$130,813	$18.79	112.2	7,043	1,184	4,224	218	$709	$6,878
Colo	8,287	1,091	13.98	19.3	79	23	360	5	43	206
Conn	56,665	11,545	20.42	39.1	576	119	900	16	194	923
Del	7,065	1,166	15.27	94.4	80	18	160	6	14	136
D. C	12,861	2,401	16.68	110.6	144	18	369	([12])	45	363
Fla	40,454	5,209	13.65	41.3	389	104	782	11	70	489
Ga	35,182	4,946	13.41	37.6	373	92	872	11	91	657
Hawaii	2,508	344	20.05	19.9	21	4	140	8	21	115
Idaho	5,484	843	15.14	24.6	56	15	199	12	19	233
Ill	280,290	55,886	18.38	129.8	3,123	571	3,550	48	487	3,594
Ind	45,307	8,551	17.44	61.0	506	183	1,295	14	183	983
Iowa	20,827	2,878	14.88	122.0	198	45	525	9	72	354
Kans	26,262	4,576	14.54	70.7	321	55	407	7	54	498
Ky	32,103	4,825	11.28	41.8	432	87	537	11	98	471
La	36,575	7,445	14.66	71.1	524	107	717	15	83	853
Maine	[13] 34,610	4,955	[13] 14.35	77.2	[13] 351	60	270	4	39	286
Md	73,342	13,781	18.41	109.8	779	125	870	35	118	906
Mass	231,174	48,925	21.71	174.2	2,323	428	2,130	83	186	2,619
Mich	258,313	43,851	19.80	100.5	2,211	563	2,254	22	222	3,166
Minn	28,761	5,356	15.44	34.0	355	62	803	27	107	666
Miss	14,745	1,727	12.22	23.5	145	39	346	5	35	336
Mo	97,133	18,476	16.56	100.8	1,130	287	1,201	14	160	1,001
Mont	6,358	930	13.53	22.3	69	16	181	11	24	209
Nebr	9,953	1,568	15.43	49.7	104	22	278	5	29	175
Nev	3,664	728	18.20	42.2	40	11	99	4	12	119
N. H	16,578	1,656	15.07	45.5	114	35	200	5	26	200
N. J	221,309	56,148	19.76	71.3	2,899	447	1,881	36	450	2,774
N. Mex	2,785	344	13.21	12.7	26	9	176	8	14	157
N. Y	758,061	180,884	19.07	98.0	9,563	2,337	6,000	158	1,006	7,851
N. C	45,385	4,942	11.58	29.6	434	107	1,000	13	129	803
N. Dak	1,624	297	17.09	30.2	18	5	77	2	6	92
Ohio	91,590	23,506	17.70	39.4	1,346	231	3,208	65	514	2,472
Okla	35,188	7,219	16.29	133.5	460	80	504	8	41	515
Oreg	46,468	7,960	16.00	66.3	507	120	530	15	72	757
Pa	401,285	68,385	17.50	92.4	3,982	843	4,240	168	601	5,162
R. I	43,798	7,335	17.04	52.8	449	83	347	8	81	349
S. C	15,478	2,107	13.79	35.1	155	43	491	5	46	350
S. Dak	2,299	206	13.54	26.2	16	5	85	2	8	68
Tenn	63,196	10,235	12.78	66.0	808	119	769	9	96	747
Tex	61,782	9,049	14.38	50.5	642	151	2,025	25	166	1,551
Utah	11,341	2,791	22.90	46.2	124	24	205	11	31	288
Vt	5,514	804	16.75	37.5	49	12	106	2	15	145
Va	41,230	4,954	12.81	48.3	389	69	960	10	75	473
Wash	128,645	36,319	20.20	120.1	1,817	220	858	47	135	1,449
W. Va	48,667	7,595	15.43	74.0	505	111	559	6	74	577
Wis	31,169	3,800	16.72	36.5	236	66	1,056	18	198	601
Wyo	2,184	349	18.71	26.7	19	5	103	5	10	130

---

[1] Based on number of first payments.

[2] Adjusted for voided benefit checks.

[3] Contributions, penalties, and interest from employers, and contributions from employees. Adjusted for refunds of contributions and for dishonored contribution checks.

[4] New claims, plus claims filed at beginning of an additional spell of unemployment during a previously established benefit year.

[5] Estimated number of different workers in each State with wages in covered employment in that State some time in 1946; national totals for each of calendar years 1944 through 1946, adjusted for duplication resulting from employment of individual workers in more than 1 State during the same year.

[6] Sum of balances in State clearing accounts, benefit-payment accounts, and unemployment trust fund accounts maintained in the U. S. Treasury.

[7] Advances for unemployment insurance administration certified to State agencies during fiscal year, including amounts reimbursed to War Manpower Commission and Department of Labor for services and facilities provided to State agencies by the U. S. Employment Service until the return of the employment service to the States on Nov. 15, 1946. Excludes amounts for services and facilities furnished to the USES by State agencies, as well as unencumbered balances reallotted to State agencies. Totals include, but State figures exclude, expenses for postage.

[8] See column heads for period to which data relate.

[9] Preliminary estimate.

[10] Excludes the District of Columbia; data not available.

[11] Expenses for postage partly estimated.

[12] Data not available.

[13] Includes estimates for June 1947; data not available.

TABLE 8.—*Unemployment insurance: State accounts in the Federal unemployment trust fund, by State, fiscal year 1946–47* [1]

[In thousands]

State	Deposits	Interest	Withdrawals	Balance, end of year
Total	$1,004,522	$131,513	[2] $811,493	$7,001,033
Alabama	6,944	1,081	8,600	56,249
Alaska	1,417	174	450	9,599
Arizona	3,464	421	850	23,330
Arkansas	5,281	616	3,695	33,150
California	116,503	13,626	[2] 126,500	706,404
Colorado	5,656	777	1,085	43,136
Connecticut	29,547	3,510	11,200	193,392
Delaware	1,232	264	1,170	13,816
District of Columbia	2,145	854	2,510	44,577
Florida	12,613	1,246	4,995	69,412
Georgia	13,185	1,669	4,700	91,143
Hawaii	1,730	386	415	20,944
Idaho	3,436	344	730	19,257
Illinois	43,034	9,301	54,000	485,077
Indiana	16,006	3,409	8,000	182,332
Iowa	8,357	1,300	2,850	71,370
Kansas	6,440	997	4,310	53,270
Kentucky	11,495	1,791	[2] 4,721	97,659
Louisiana	10,473	1,536	6,875	82,772
Maine	6,414	734	5,005	38,846
Maryland	13,155	2,223	14,500	116,365
Massachusetts	28,100	3,756	50,000	183,726
Michigan	43,605	4,051	32,700	220,494
Minnesota	15,775	1,914	4,770	105,933
Mississippi	7,340	620	1,680	35,168
Missouri	18,315	3,047	18,500	159,069
Montana	4,215	429	957	23,920
Nebraska	3,133	533	1,470	28,901
Nevada	1,723	224	705	12,158
New Hampshire	3,633	486	1,637	26,095
New Jersey	78,746	8,390	55,475	449,937
New Mexico	2,715	247	335	14,069
New York	184,609	18,941	179,500	1,003,266
North Carolina	16,685	2,347	5,075	128,257
North Dakota	983	113	350	6,224
Ohio	59,625	9,432	23,625	513,529
Oklahoma	5,405	771	6,500	39,765
Oregon	12,002	1,334	7,900	71,667
Pennsylvania	73,610	11,260	66,000	596,705
Rhode Island	13,870	1,475	7,125	80,397
South Carolina	6,204	839	2,350	45,865
South Dakota	776	138	172	7,549
Tennessee	15,496	1,781	10,200	95,550
Texas	18,717	3,070	9,875	165,407
Utah	6,050	550	2,635	30,459
Vermont	2,149	269	650	14,718
Virginia	10,235	1,359	4,975	74,274
Washington	30,175	2,637	37,300	134,538
West Virginia	10,379	1,365	7,720	73,442
Wisconsin	10,422	3,695	3,775	198,051
Wyoming	1,303	180	375	9,802

---

[1] Trust fund maintains a separate account for each State agency, in which are held all moneys deposited from State unemployment funds and from which State agencies withdraw amounts as required for benefit payments. Deposits include those not cleared by the Treasurer of the United States; interest includes accrued interest receivable; withdrawals include outstanding checks; these items excluded from table 3.

[2] Includes withdrawals from the Kentucky account for administrative expenses of the State unemployment insurance program; equivalent amounts, recorded as grants to the State for unemployment insurance administration, were paid by the Social Security Administration for the State to the railroad unemployment account in accordance with section 13 of the Railroad Unemployment Insurance Act. It also includes withdrawals by California of $200,000 for disability insurance benefits.

Source: Compiled from data furnished by the Treasury Department, Bureau of Accounts.

TABLE 9.—*Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1947, and total payments to recipients, fiscal year 1946–47, by program and State*

[Corrected to Sept. 15, 1947]

State	Old-age assistance			Aid to dependent children				Aid to the blind		
	Number of recipients, June	Payments to recipients		Number of recipients, June		Payments to recipients		Number of recipients, June	Payments to recipients	
		Average payment, June	Total, fiscal year (in thousands)	Families	Children	Average payment per family, June	Total, fiscal year (in thousands)		Average payment, June	Total, fiscal year (in thousands)
1944–45	2,038,395	$29.46	$701,951	255,578	646,582	$47.46	$138,084	55,465	$30.27	$19,802
1945–46	2,108,216	31.48	761,587	311,250	799,325	53.71	172,800	57,616	32.89	21,409
1946–47	2,271,007	36.04	910,329	396,098	1,009,360	61.68	254,367	62,085	37.87	25,810
Ala	52,299	17.54	9,810	8,106	22,740	31.48	2,740	1,004	20.00	219
Alaska	1,357	39.79	696	229	559	31.31	99	(1)	(1)	(1)
Ariz	10,654	47.58	5,677	2,391	6,876	46.76	1,219	622	57.29	394
Ark	40,098	18.25	7,328	6,915	18,278	36.12	2,267	1,473	21.27	335
Calif	172,463	52.61	102,692	11,052	26,830	101.47	10,465	6,440	62.84	4,436
Colo	42,608	65.11	23,914	4,081	11,225	68.59	3,136	396	45.48	191
Conn	14,991	43.87	7,212	2,809	7,188	93.06	2,961	143	40.34	62
Del	1,201	22.66	292	248	669	67.74	244	116	28.48	30
D. C	2,334	40.07	1,057	1,392	4,131	74.26	964	214	42.21	103
Fla	52,670	36.59	20,575	10,767	26,838	35.34	3,410	2,654	38.01	1,094
Ga	76,741	17.04	13,688	6,501	16,719	35.30	2,245	2,205	20.42	480
Hawaii	1,700	35.38	571	963	2,916	93.06	799	67	40.66	26
Idaho	10,520	41.71	4,986	1,754	4,519	78.45	1,493	215	46.68	111
Ill	126,495	39.57	57,236	22,662	56,246	78.63	21,133	4,855	41.20	2,239
Ind	50,588	30.33	18,586	7,622	18,764	42.49	3,383	1,909	32.31	712
Iowa	48,295	39.72	21,084	4,277	10,940	34.67	1,565	1,223	46.74	625
Kans	33,890	34.74	12,911	4,779	12,118	70.70	3,359	1,126	39.91	502
Ky	47,285	17.38	8,613	9,152	23,507	35.06	3,306	1,705	18.40	329
La	49,310	24.28	12,551	11,897	30,797	45.58	5,560	1,513	29.84	494
Maine	15,158	34.21	5,967	1,888	5,415	89.87	1,798	731	34.31	303
Md	11,819	30.88	4,266	4,839	13,903	48.28	2,418	467	34.05	187
Mass	84,767	50.60	49,297	9,250	22,944	95.58	9,548	1,187	51.46	664
Mich	93,539	35.94	38,546	20,060	47,789	77.83	16,596	1,425	40.36	636
Minn	53,970	37.07	23,341	5,922	15,107	55.84	3,640	981	44.52	485
Miss	39,296	17.32	7,133	5,518	14,615	26.43	1,404	2,093	23.87	527
Mo	113,897	35.05	43,646	19,979	52,169	33.46	7,233	(2)	(2)	(2)
Mont	10,663	37.80	4,585	1,700	4,492	67.22	1,141	393	40.25	173
Nebr	25,241	40.27	11,018	3,144	7,436	81.23	2,669	458	40.51	202
Nev	2,011	47.47	1,035	(2)	(2)	(2)	(2)	(2)	(2)	(2)
N. H	6,754	36.70	2,727	1,102	2,804	78.45	923	289	39.70	124
N. J	23,094	40.76	10,384	4,115	10,629	78.49	3,235	589	42.60	276
N. Mex	8,025	35.85	3,074	3,659	9,583	48.54	1,740	296	39.14	119
N. Y	107,934	46.99	56,742	40,125	93,539	98.02	39,462	3,384	52.28	1,931
N. C	38,607	18.05	6,918	7,684	21,918	35.44	2,699	2,835	25.95	756
N. Dak	8,925	39.45	4,001	1,663	4,561	74.90	1,303	127	37.72	54
Ohio	121,602	39.56	52,296	9,352	25,654	66.05	6,731	3,223	36.02	1,251
Okla	95,349	42.33	44,248	27,834	67,211	44.98	12,368	2,444	42.91	1,109
Oreg	22,216	41.87	11,260	2,342	5,958	89.74	2,049	384	49.61	234
Pa	90,031	33.96	35,607	38,955	99,802	72.12	30,757	(2)	(2)	(2)
R. I	8,366	39.66	3,573	2,411	6,045	77.47	1,799	137	41.25	57
S. C	29,588	20.23	6,200	5,529	15,366	27.60	1,517	1,192	23.98	305
S. Dak	12,574	32.42	4,698	1,880	4,642	46.03	992	212	30.04	72
Tenn	47,057	18.38	9,410	13,425	36,024	35.09	5,065	1,716	22.93	438
Tex	193,891	28.92	60,821	14,073	35,452	41.73	4,492	5,291	31.52	1,808
Utah	12,616	42.22	6,654	2,439	6,550	92.03	2,543	147	48.17	83
Vt	5,426	30.81	1,855	685	1,888	46.34	333	179	36.88	70
Va	15,850	17.63	3,026	4,504	13,118	39.46	1,772	1,115	22.72	269
Wash	65,643	53.02	43,133	7,317	17,647	104.63	7,834	642	61.00	479
W. Va	20,696	15.08	4,177	9,584	26,272	28.90	3,562	876	18.06	208
Wis	47,137	36.00	19,142	7,156	17,911	79.83	6,035	1,293	36.55	539
Wyo	3,766	48.72	2,071	367	1,056	86.37	361	99	52.28	65

[1] Alaska does not administer aid to the blind.
[2] No approved plan in operation.

TABLE 10.—*Special types of public assistance under plans approved by the Social Security Administration: Federal grants certified and total expenditures and percent from Federal funds, by program and State, fiscal year 1946–47*

[Amounts in thousands; data corrected to Sept. 15, 1947]

State	Federal grants certified [1]				Expenditures for assistance and administration					
					Old-age assistance		Aid to dependent children		Aid to the blind	
	Total	Old-age assistance	Aid to dependent children	Aid to the blind	Amount	Percent from Federal funds	Amount	Percent from Federal funds	Amount	Percent from Federal funds
1944–45	$409,985	$345,738	$53,892	$10,355	$743,984	47.3	$151,398	36.4	$21,729	47.4
1945–46	439,132	368,524	60,126	10,482	806,472	46.2	188,707	33.3	23,534	45.5
1946–47	613,831	491,091	108,429	14,312	960,356	51.6	275,655	38.6	28,206	49.9
Ala	8,054	6,167	1,748	139	10,379	60.0	2,974	59.4	234	59.1
Alaska	417	350	67	(2)	725	47.7	119	51.9	(2)	(2)
Ariz	3,869	2,931	760	178	5,897	50.7	1,345	56.4	415	43.0
Ark	6,067	4,445	1,402	220	7,697	59.9	2,371	58.7	358	58.6
Calif	53,733	48,652	3,203	1,878	107,773	45.2	11,641	27.9	4,819	37.9
Colo	12,486	10,972	1,393	121	24,576	45.4	3,356	38.6	218	53.8
Conn	4,588	3,596	956	36	7,536	48.0	3,122	27.3	65	49.3
Del	319	183	112	24	340	56.3	296	34.5	38	55.8
D. C	1,067	578	435	55	1,181	50.4	1,081	39.1	112	50.1
Fla	15,027	12,176	2,206	644	21,482	55.2	3,767	57.6	1,154	54.9
Ga	10,898	9,131	1,440	327	14,901	60.2	2,408	58.3	536	58.8
Hawaii	695	350	328	17	679	51.7	916	35.2	33	50.9
Idaho	3,163	2,584	522	56	5,205	50.0	1,562	33.2	121	46.1
Ill	38,727	30,504	6,917	1,306	60,396	51.9	22,436	31.4	2,419	52.3
Ind	14,728	11,840	2,424	465	19,911	55.8	3,748	54.7	805	55.2
Iowa	12,191	10,823	1,046	322	22,199	52.3	1,709	57.9	679	47.8
Kans	8,867	7,275	1,314	278	13,883	52.5	3,654	36.6	547	50.4
Ky	7,661	5,477	1,976	208	9,129	60.8	3,424	57.8	348	60.5
La	10,985	7,601	3,092	292	13,670	56.6	6,187	50.8	542	54.9
Maine	4,444	3,623	640	182	6,321	55.3	1,893	32.8	320	55.3
Md	4,313	2,663	1,534	116	4,614	55.4	2,695	56.5	200	55.2
Mass	25,797	22,658	2,816	323	52,201	43.9	10,171	27.2	696	44.7
Mich	27,727	21,612	5,771	344	40,378	54.6	17,412	31.8	663	54.3
Minn	14,299	12,183	1,857	259	24,495	51.7	4,055	44.8	552	48.0
Miss	5,959	4,704	932	323	7,690	60.5	1,528	58.4	557	57.8
Mo	29,766	25,006	4,760	(3)	45,229	55.6	8,015	57.9	(3)	(3)
Mont	3,236	2,638	490	108	4,870	54.6	1,227	40.5	196	54.1
Nebr	7,299	6,296	885	118	11,640	52.7	2,842	31.4	217	53.0
Nev	563	563	(3)	(3)	1,110	51.9	(3)	(3)	(3)	(3)
N. H	1,943	1,571	298	74	2,933	53.9	956	32.5	133	53.9
N. J	6,997	5,545	1,280	172	11,518	50.6	3,497	34.6	313	51.1
N. Mex	2,772	1,746	958	69	3,303	52.7	1,929	49.6	133	51.6
N. Y	40,580	27,678	11,920	983	62,211	45.9	43,698	27.0	2,300	44.1
N. C	6,749	4,496	1,740	513	7,466	60.7	2,966	59.2	882	57.0
N. Dak	2,763	2,152	578	33	4,253	49.7	1,409	37.0	64	50.3
Ohio	32,028	28,210	3,018	800	54,744	53.7	7,364	40.0	1,413	54.2
Okla	32,674	24,828	7,221	625	45,625	54.6	12,957	56.2	1,153	54.4
Oreg	6,596	5,862	630	104	11,810	48.9	2,214	28.8	244	43.2
Pa	33,107	20,356	12,751	(3)	38,309	54.1	33,866	36.4	(3)	(3)
R. I	2,555	1,863	662	30	3,776	50.8	1,923	33.5	63	48.4
S. C	5,046	3,867	985	194	6,623	58.9	1,664	61.1	337	57.6
S. Dak	3,238	2,633	562	43	4,966	55.6	1,063	51.9	78	56.0
Tenn	9,263	5,876	3,119	268	10,014	59.7	5,402	58.5	458	58.2
Tex	40,644	36,594	2,945	1,104	62,920	56.9	4,838	58.6	1,929	56.0
Utah	4,475	3,603	833	40	6,953	49.9	2,735	28.3	87	44.8
Vt	1,289	1,030	210	48	1,943	56.3	361	56.7	80	53.3
Va	3,370	2,063	1,129	178	3,443	59.1	2,067	54.3	312	57.8
Wash	21,525	19,290	2,038	197	44,772	41.8	8,239	24.4	507	38.0
W. Va	5,026	2,682	2,214	130	4,436	60.0	3,729	59.0	219	58.7
Wis	13,014	10,488	2,190	336	20,053	55.2	6,435	32.3	590	54.9
Wyo	1,229	1,075	122	32	2,179	47.9	388	34.0	68	46.8

---

[1] Amounts of Federal grants certified in fiscal year; differ slightly from fiscal-year expenditures from Federal funds reported by States.

[2] Alaska does not administer aid to the blind.

[3] No approved plan in operation.

TABLE 11.—*Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, and for emergency maternity and infant care, fiscal year 1946–47, by program and State*[1]

[In thousands]

State	Maternal and child health services			Services for crippled children			Child welfare services	Emergency maternity and infant care
	Total	Fund A	Fund B	Total	Fund A	Fund B		
Total	$10, 672. 2	$5, 327. 0	$5, 345. 2	$7, 412. 7	$3, 669. 5	$3, 743. 2	$2, 009. 9	$10, 953. 3
Alabama	355. 9	119. 6	236. 3	230. 6	85. 6	145. 0	93. 8	136. 8
Alaska	120. 9	38. 4	82. 5	135. 7	69. 5	66. 2	20. 2	7. 1
Arizona	67. 2	30. 3	37. 0	145. 6	39. 1	106. 5	22. 1	54. 3
Arkansas	217. 9	96. 6	121. 3	149. 9	63. 0	86. 9	52. 4	109. 2
California	349. 2	253. 3	95. 9	396. 9	236. 8	160. 1	53. 4	1, 188. 4
Colorado	173. 4	69. 8	103. 5	131. 3	46. 6	84. 7	12. 7	80. 6
Connecticut	171. 8	78. 3	93. 5	143. 7	50. 9	92. 9	18. 9	234. 6
Delaware	43. 1	27. 9	15. 2	29. 4	13. 9	15. 5	17. 4	37. 4
District of Columbia	134. 4	54. 9	79. 6	187. 0	79. 1	107. 9	19. 4	95. 0
Florida	316. 4	98. 9	217. 5	280. 6	96. 7	183. 9	13. 8	107. 2
Georgia	368. 2	131. 4	236. 7	140. 6	81. 6	58. 9	50. 6	127. 6
Hawaii	151. 8	50. 8	101. 0	87. 2	37. 4	49. 8	9. 5	113. 8
Idaho	98. 4	37. 8	60. 6	52. 0	33. 6	18. 3	18. 7	38. 2
Illinois	299. 8	256. 7	43. 1	200. 7	140. 6	60. 1	30. 4	540. 7
Indiana	157. 5	119. 4	38. 1	89. 1	71. 8	17. 3	36. 0	302. 8
Iowa	90. 1	73. 0	17. 2	136. 0	60. 7	75. 3	50. 6	195. 0
Kansas	207. 0	79. 2	127. 7	49. 0	42. 6	6. 4	15. 2	177. 0
Kentucky	328. 0	115. 9	212. 1	231. 7	144. 8	86. 9	74. 6	158. 7
Louisiana	407. 9	120. 0	287. 9	127. 5	73. 0	54. 5	48. 6	168. 8
Maine	113. 0	37. 4	75. 7	81. 6	40. 7	40. 9	26. 4	55. 9
Maryland	215. 8	90. 3	125. 5	122. 1	61. 6	60. 5	38. 2	244. 6
Massachusetts	248. 8	133. 6	115. 2	167. 2	91. 2	76. 0	23. 9	254. 9
Michigan	276. 1	170. 9	105. 2	233. 9	153. 4	80. 5	70. 8	603. 8
Minnesota	116. 0	86. 5	29. 6	171. 4	57. 5	113. 9	49. 8	144. 7
Mississippi	362. 2	111. 0	251. 3	194. 0	69. 4	124. 7	61. 9	152. 0
Missouri	173. 0	138. 8	34. 2	140. 3	83. 7	56. 6	56. 4	262. 4
Montana	56. 2	26. 0	30. 3	32. 7	28. 4	4. 4	29. 4	37. 3
Nebraska	109. 2	57. 1	52. 1	85. 1	48. 4	36. 7	17. 3	118. 8
Nevada	42. 5	15. 6	26. 8	60. 6	14. 8	45. 7	16. 4	9. 6
New Hampshire	90. 5	51. 3	39. 2	52. 2	31. 9	20. 3	27. 6	36. 1
New Jersey	161. 3	134. 7	26. 6	176. 4	78. 4	98. 0	24. 4	179. 4
New Mexico	200. 8	44. 6	156. 1	74. 8	39. 3	35. 6	28. 6	68. 0
New York	406. 4	346. 8	59. 6	153. 2	143. 2	10. 0	52. 5	2, 050. 2
North Carolina	275. 3	159. 4	115. 9	205. 4	99. 5	105. 9	81. 1	159. 3
North Dakota	106. 8	47. 9	58. 9	90. 5	37. 2	53. 2	18. 5	67. 7
Ohio	226. 5	171. 2	55. 3	182. 4	131. 0	51. 4	58. 3	264. 0
Oklahoma	173. 4	72. 4	101. 0	157. 9	62. 6	95. 3	34. 7	157. 8
Oregon	106. 4	59. 1	47. 3	114. 4	46. 8	67. 6	26. 9	124. 9
Pennsylvania	373. 4	260. 4	113. 0	209. 9	171. 9	38. 0	91. 6	447. 0
Puerto Rico	428. 6	118. 9	309. 7	173. 9	53. 5	120. 5	58. 6	29. 4
Rhode Island	54. 5	40. 8	13. 7	86. 8	25. 8	60. 9	15. 1	16. 7
South Carolina	324. 8	101. 4	223. 3	220. 1	68. 9	151. 2	57. 9	125. 5
South Dakota	23. 6	23. 6	---------	64. 4	34. 3	30. 1	23. 6	42. 1
Tennessee	240. 9	139. 2	101. 7	119. 8	83. 3	36. 5	43. 2	95. 8
Texas	493. 0	230. 6	262. 3	215. 8	122. 3	93. 5	82. 0	235. 0
Utah	96. 6	45. 1	51. 6	126. 1	40. 6	85. 4	20. 2	60. 5
Vermont	74. 4	39. 3	35. 2	35. 2	17. 5	17. 7	16. 4	24. 9
Virginia	381. 8	150. 2	231. 6	185. 1	78. 1	107 0	38. 2	248. 1
Virgin Islands	26. 2	18. 2	8. 0	13. 6	11. 7	1. 9	10. 0	---------
Washington	207. 6	103. 8	103. 8	168. 8	35. 8	133. 1	21. 0	438. 2
West Virginia	212. 3	98. 2	114. 0	192. 8	60. 7	132. 1	67. 5	155. 5
Wisconsin	185. 7	134. 3	51. 3	148. 9	67. 9	81. 0	53. 6	155. 6
Wyoming	29. 7	16. 2	13. 5	10. 9	10. 9	---------	9. 6	14. 4

---

[1] Based on checks issued.

SECTION TWO

OFFICE OF EDUCATION

INTRODUCTION

WHEN THE HISTORIANS come to record the developments of the past year they will probably set in bold italics the grave disappointment and growing anxiety of the American people with respect to the fruits of World War II. With the coming of victory our hope had been for an end of international strife and for cooperation in the establishment of a rule of law among the nations of the world. Yet, as the peace settlements and economic reconstruction have been delayed, as the United Nations has experienced extreme difficulties in dealing with obvious threats to the peace, and as the awful threat of an atomic arms race has continued to overshadow the world, earlier confidence in the prospect for international cooperation and concord has diminished rapidly.

Adding to the sobering realization that we are living in precarious times was the report of the President's Advisory Commission on Universal Training published in the spring of 1947. In addition to recommending prompt legislative provision for 1 year of military training for all able-bodied young American males between their seventeenth and twenty-first birthdays, the Commission was only slightly less emphatic in urging action respecting five other elements in an "integrated national security program." The first of these provides the theme for the Introduction to this Annual Report to the Congress.

"Our Number One security requirement," said the Commission, "is a strong united Nation . . . It is not sufficient to take our democracy for granted. We must concentrate our attention on keeping it vibrant and alive to expanding social and economic needs. In particular we must be concerned with the following things: (1) A healthy economy reflected in full production, full employment, industrial peace and the avoidance of recurring economic crises or inflation . . . (2) A high level of general education throughout the country, with advanced schooling made the privilege of all who can qualify for it by their own merit . . . (3) Improved physical and mental health, not only for the happiness they would bring, but also to make available to the country, in peace or war, its full potential manpower resources . . . (4) An understanding of democracy and an increased sense of personal responsibility on the part of every individual for making democracy work . . ."

To the achievement of this "Number One security requirement," education has a contribution to make of Number One importance. To strengthen education is to contribute mightily to a healthy economy, improved physical and mental health, an understanding of democracy, and a greater sense of personal responsibility for its success. To achieve "a high level of general education throughout the country, with advanced schooling the privilege of all who can qualify for it on their merit" is to assure an electorate competent to keep democracy "vibrant and alive to expanding social and economic needs."

The achievement, in the interest of the national security, of a strengthened educational program "throughout the country" cannot be solely the responsibility of the several individual States. A national objective implies a national responsibility for leadership and assistance. This responsibility the President's Commission recognized, although it refrained from making specific recommendation as to ways and means by which the national responsibility might be discharged. I invite your attention to three such specifics.

I submit that the national responsibility for leadership and assistance in strengthening education requires for its discharge Congressional action on three fronts: (1) General Federal aid to education: (2) Federal scholarships; (3) continued expansion of the staff and services of the United States Office of Education.

The necessity for Federal financial assistance to assure a reasonable national minimum of educational opportunity in every State and community has repeatedly been urged by United States Commissioners of Education. Year after year groups of citizens have appeared before committees of Congress to present testimony in favor of one Federal aid bill or another. Year after year, in peace and lately in war, the evidence of need has accumulated. It fills volumes of printed testimony. Year after year the deplorable results of educational discrepancies between richer and poorer States, between urban and rural communities, and between schools for white and for Negro children have been pointed out. Why is nothing done? Surely it is not that we cannot afford it. The annual cost would be trifling in comparison with what the Nation now pays in wasted human talent for the lack of universally strong schools and school systems; or in comparison with the economic dividends that would accrue from what the United States Chamber of Commerce terms "Education—An Investment in People."

A second front on which national educational leadership and assistance should be forthcoming is in the prompt congressional provision of a program of Federal scholarships and fellowships which will make, in the words of the President's Commission, "advanced schooling the privilege of all who can qualify for it by their own merit." National conservation of our human resources is imperative in any "integrated national security program." To cite but one example, there is at present urgent need to make up wartime arrears in the training of scientists. Many more highly trained scientists are needed to expand the research activities upon which our future national security and industrial progress so largely depend. That need will be met in part through sharply expanded programs of scientific training in our colleges and universities now being conducted under stimulation of the present temporary program of Federal scholarships for GI's. The success of this GI education program argues for the development, before 1950, when that program tapers off, of a permanent program of Federal scholarship grants to be administered in the interest of the national need for trained leadership, not alone in scientific fields, but in all fields of learning and open to "all who can qualify . . . by their own merit" for advanced schooling. By such a system of Federal scholarships the national interest in the further strengthening and democratization of higher educational opportunities can be permanently assured. At the same time the essential autonomy of the colleges and universities and the essential democratic freedom of learners to choose the studies they wish to pursue can be left unimpaired.

The third front for recommended congressional action is continued support for further expansion of the staff and services of the United States Office of Education to provide needed leadership and advisory assistance to schools and colleges which voluntarily seek such assistance. This recommendation is not motivated by any bureaucratic urge for prestige or authority. Rather it springs from a conviction, based on more than 2 decades of experience in the States and 13 years as Commissioner, of the need for a well-staffed United States Office of Education to enable it to discharge its essential statutory functions.

I am not unmindful of the encouraging increase in interest and support accorded the United States Office of Education by recent Congresses. Yet the fact remains that the Office still is inadequately staffed to fulfill its statutory mandate or to meet the proper service expectancies of the schools and colleges of the Nation. The fact also remains that the United States Office of Education, after an existence of more than three-quarters of a century, is today only a relatively small bureau in the Federal Security Agency.

Important Federal educational functions are distributed among numerous governmental agencies. Because the Federal education office has been ill-equipped to perform its functions with respect to the total field of education some of those functions have naturally been assumed by other and stronger agencies. The resultant dispersal of educational functions and of educational leadership in the Federal Government structure has long since created a situation which fully justifies the closest scrutiny. It is to be hoped that the recently appointed 12-man Commission on organization of the Executive Branch of the Government will not neglect this field of inquiry.

These, then, in brief are my recommendations to the Congress as called for by the statute establishing the Office. In the ensuing pages of this annual report you will find reflected some of the concerns of American educators during this second postwar year, together with a brief record of various projects and accomplishments of the several Divisions of the Office in relation to those concerns. It is hoped that the reading of that record will give some indication of the ways in which a relatively small but capable and hard-working staff in the Office of Education has devoted itself to "promotion of the cause of education throughout the country" during the fiscal year ending June 30, 1947.

JOHN W. STUDEBAKER,
U. S. Commissioner of Education.

ELEMENTARY EDUCATION

"School's in Sesssion"

Nothing dramatic happened in elementary education during the year—except—the schools stayed open and continued to serve more than 20 million children. That, however, was drama of heroic proportions.

These things were being said about the schools—in newspapers, magazines, lectures, sermons, and radio broadcasts:

> Approximately 110,000 teachers were teaching on emergency licenses. This means that 2,000,000 children depended for instruction on individuals who did not possess the minimum requirements for standard teaching certificates.
>
> Probably from 5 to 6 million additional children were dependent upon teachers who have less than 4-year college degrees, at a time when the level of training of the general adult population has itself attained second year of high school. At this rate the teaching profession must exert itself to be in a leadership position.
>
> Many schools are reporting half or more of their teachers new in their positions, at a time when young children especially need a sense of stability and certainty.
>
> The number of young persons who elect teaching as a vocation and the proportion of those who choose to be elementary-school teachers are both declining. Bad as the current situation is, it cannot but be worse in elementary schools in the next few years.
>
> Construction has not caught up with war-connected shortages, so that overcrowded buildings, large classes, half-day sessions, inadequate facilities and supplies are common.
>
> The beginning of the ground-swell in increased enrollments due to wartime increases in births has reached primary grades. Where there was one first-grade teacher, many schools will now need two, at a time of severe teacher shortage.

Nevertheless, schools continued almost without a break—some even lengthened the school year; teacher memberships in professional organizations steadily increased; and curriculum workshops, courses of study, teachers meetings, and other indications of professional activity to improve children's school experiences continued and multiplied.

There is no doubt however, that elementary education faces one of its worst crises, not only in the matter of shortages of staff and facilities but also in the degree of confidence placed in it by homes and communities.

Program Plans of the Division

Early in the year, the anticipated activities of the staff of the Elementary Education Division were itemized and described in 34 projects. Some of these were specific activities to be completed at a certain time, such as manuscripts for publication. Others were continuing activities, which carried over from year to year. In general they were of four types: (1) A variety of activities carried on in cooperating with professional and public service organizations and agencies; (2) the organization and improvement of information services; (3) the production of manuscripts; and (4) consultative services in the field of elementary education. The following report of staff activities for the year 1946–47 is organized around these four headings.

Cooperating With Educational Organizations and Agencies

State Directors of Elementary Education

During the year the Division continued its cooperative relationships with the Association of State Directors of Elementary Education. The annual meeting of this Association, held in Chicago, brought together the persons responsible for elementary education at the State level in 24 States. These persons, under Chief State School Officers, administer State laws relating to elementary schools, prepare curriculum guides, establish or help to establish training and certification standards, develop leadership in local school systems, and carry out other important functions which determine in large measure the character and the quality of the education which is provided for millions of elementary school children.

At the Chicago meeting the program centered on progress reports of the Association's six committees: 1. *Characteristics of a Good Elementary School;* 2. *Coordination of School and Community Services for a 12-Month Developmental Program for Elementary School Children;* 3. *Programs for Children Below 6;* 4. *Techniques for Stimulation of Curriculum Development Throughout a State;* 5. *Programs for the Continuous Professional Preparation of Teachers;* 6. *School Housing Facilities for a Desirable Educational Program.*

Later in the year, members of four of the six committees met in Washington to carry their reports another step toward publication, which is anticipated for the coming year.

State Directors of Special Education

Similarly the Office has continued its cooperation with the Conference of State Directors and Supervisors of Special Education, the association for State department officials who carry responsibility for developing and improving the States' programs for exceptional children and youth. In May, under the leadership of the chief of the section on education of exceptional children, and with the cooperation of the Conference of State Directors and Supervisors of Special Education, a conference was held to make plans for analyzing current State legislation, looking toward a comprehensive digest and interpretation of the same. It is expected that a publication on this subject will result, under the joint authorship of the Office of Education and the Conference.

Health Education Conference

Convinced of the critical importance of a concerted effort to improve health education in the elementary schools, the Division held a work conference on the school health program in cooperation with the Southern Regional Association of the Department of Health, Physical Education, and Recreation of the National Education Association. Thirteen States were represented at this work conference by health education and general elementary education supervisors from city and State departments of education, by health educators from health departments, and by members of college health education staffs. A statement of recommended program resulted. Equally valuable was the experience of the generalists and the specialists in health education in planning together.

Conference of Leaders in Elementary Education

A high light of the year was the Leadership Conference in June, at which representatives of 17 national organizations met with the staff of the Elementary Education Division. The conference brought leaders in various aspects of education which have some relation to children in the elementary school, so that they might plan together for better things for those children. The list of organizations included both subject-matter groups and general education groups which have active programs in elementary education.

The first session of the conference centered on current problems in elementary education representing serious unmet needs of children. They are many: Programs for children under 6 years of age; year-round programs for elementary school children; the coordination of county school systems so as to assure appropriate programs for all children and youth; continuity of planning for elementary and secondary schools in a school system; a class size conducive to children's individual development; salaries sufficient to attract and hold the kind of teachers every child should have; arrangements for teachers to work on curriculum programs; and many others. At the end of the conference a committee summarized the discussion under the headings (*a*) Obstacles to the development of better elementary schools: in the teacher, in the school, in the community, in the State department of education or in State laws; and (*b*) Recommendations for overcoming these obstacles.

Two important problems seemed to the conference members to be related—that of developing common purposes on the part of the school staff, and that of obtaining understanding and support of the elementary school program on the part of the public. There was needed, it seemed, a clear statement of the *experiences* children should have. Only then can the contributions in art, in social studies, in music; the facilities in playgrounds, tools, laboratories, and libraries; the help of specialists in geography, penmanship, mathematics, and other fields *be pooled for children's desirable growth.* Only then can curriculum workers talk clearly to parents and the public about how and why today's elementary schools are different from the ones they attended. Consequently, another committee went to work on such a statement, classifying their recommended types of experiences under 10 major headings.

In succeeding sessions of the conference questions about research and the resources available to elementary schools were discussed. Each representative described briefly his organization's program in elementary education. Everyone present was impressed with the wealth of materials and services available to classroom teachers and to other curriculum workers. Publications, national and regional conferences, field service, and other activities were reported by many organizations. It seemed to the group that some periodic canvassing of organizations as to their current projects in elementary education and possibly a published summary would be useful in helping organizations to avoid duplication and to seek cooperation on certain projects. It was recommended that the Office of Education make such a canvass during the next school year.

As the discussion continued it became evident that there are gaps in our knowledge of the growth problems—mental, physical, social, and emotional—of boys and girls; of the effects of certain teaching practices; and of other matters important to successful programs for children and youth. A committee appointed to summarize the discussion reported that the studies that need to be made in the field of elementary education appear to be of two general types. One type of investigation would be the result of analytical group thinking on the part of this conference or of representatives of the various organizations concerned. The other type of investigation would be based upon scientific methods of objective research carried on either as an individual or as a cooperative project.

One outcome of the conference was the proposal that there be another conference in 1948 sponsored jointly by this group and the Office of Education, but including representatives of parents and public service groups.

Cooperation With Other Federal Agencies

Many Federal agencies have divisions, or going programs, in the field of education. Others have programs which in some way affect education. During the year, the Division cooperated with various Federal agencies, bureaus, and committees in a variety of activities affecting the educational program of children in the elementary school. For example, members of the staff cooperated with other constituent units in the Federal Security Agency: United States Public Health Service in connection with the development of facilities for schools under the National Mental Health Act; Bureau of Public Assistance, Social Security Administration, in a conference on problems of the blind; Children's Bureau, Social Security Administration, on a study of facilities for children with cerebral palsy; and with the Children's Bureau in preparing for publication a manuscript entitled "Youth Education and Employment," and in working out policies which affect group services for young children.

Staff members of the Division also cooperated with the Attorney General's Office in the preparation of material for the National Conference on Juvenile Deliquency; Department of State in planning itineraries for visiting educators and in preparing packets of materials on elementary education; War Department in preparing book-purchase lists and other educational materials; Federal Public Housing Authority in a postwar planning conference on community services; and with the President's Fire Prevention Conference in planning and conducting the program as it related to education.

Research and Publication

During the year five studies prepared by the Division of Elementary Education have gone to press:

Schools for Children Under Six (Bulletin 1947, No. 5).—Public opinion was aroused during the war to the needs of children below the traditional school entrance age of six. Extended school service programs spread rapidly in schools throughout the country. This study is a report of the status of nursery schools and kindergartens. It provides a statistical account of the development of schools for children under six.

Camping and Outdoor Education in the School Program (Bulletin 1947, No. 4).—This study, through the use of specific illustrations from various parts of the country, shows the importance of camping and outdoor education in relation to the total elementary school program, and suggests the steps that a school staff can take to make such a program a reality.

Schools Count in Country Life (Bulletin 1947, No. 8).—The objective of this study was to present descriptions of current practices which are significant for teachers, supervisors, and curriculum workers in rural education. Descriptions of practice have been obtained from schools of different types and sizes ranging from 1-, 2-, and 3-teacher schools to large consolidated schools.

Science in the Elementary School.—During the year four articles on different phases of elementary science teaching were published in SCHOOL LIFE. They included statements of objectives, descriptions of practices, analyses of trends in the training of science teachers, and description of activities in elementary school classrooms. These articles have been combined into a reprint available for purchase from the Superintendent of Documents.

Health Education in the Elementary School.—During the year four articles on various phases of health education were published in SCHOOL LIFE. They covered the general philosophy of health education, descriptions of needed facilities and equipment and of health services, and recommendations concerning the place of physical activity in the school day. These articles have been collected in a reprint available for purchase from the Superintendent of Documents.

Other materials prepared by the staff have been issued as articles in SCHOOL LIFE and other periodicals and year books, and as circulars of information.

Informational Materials

To supplement the publication program and to provide brief compact summaries of information on topics related to elementary education, particularly those which are subjects of frequent inquiry through correspondence, and to provide reading lists on specific topics, two series of mimeographed circulars were issued this year. They are called, respectively, *Education Briefs* and *Selected References.* They include the following titles:

EDUCATION BRIEFS

1. Materials and apparatus for teaching elementary science.
2. Using pictures at school.
3. Registration of nursery schools, kindergartens, and child-care centers by State education departments.
4. Changing practices with time allotment.
5. Some types of classroom organization.
6. Health plays in the elementary school.

SELECTED REFERENCES

1. The primary unit—An aid to children's progress.
3. Professional literature for teachers of elementary science.
4. Physical education in the elementary school.
5. Education of exceptional children and youth.
6. Nursery schools and kindergartens—The first years in elementary education.
7. Recent publications in elementary school health.
8. Health songs for primary grades.

Progress has been made also in the organization of loan services, which now include packets of material, display books, and picture serials.

Consultative Services

On State and Local Education Programs

While we are committed in this country to the ideal of State and local autonomy in education, there is a great unevenness in educational facilities and services throughout the country. Consultative services from a national office can help to minimize this unevenness.

The term "Consultative services" needs some specifics to give it reality. Here is what some typical letters of invitation said:

> . . . help us plan our State course of study in elementary science.
>
> . . . give us information and advice on how to organize our division of special education.
>
> . . . serve as chairman [or director, or participant, or summarizer] in our work conference.
>
> . . . survey our State school for the blind (or the deaf, or other special group)
>
> . . . work with our State and county supervisors on the health program in rural schools.
>
> . . . bring us the best of the new educational materials for young children.
>
> . . . meet with our committee on training and certification standards for elementary teachers.
>
> . . . serve as consultant to our citizens committee which is preparing recommendations to the legislature.
>
> . . . show us how to teach an intermediate grade to interpret science in their own school community.
>
> . . . help us make plans for the enrichment of educational programs for seventh and eighth grades.

Altogether a total of 639 days was spent in travel status by staff during the year—140 on State programs, 124 on local programs, 164 on national or regional programs, and 211 on foreign educational missions.

On International Educational Relations

At a time when our international relationships occupy such a prominent place in public affairs, it is inevitable that the educational aspects of such relationships assume a place of great importance, so far as staff time and office facilities are concerned.

Three members of the staff went abroad in order to study and assist with the education program in Germany and Austria. The director visited Germany and Austria, at the request of the War Department and the State Department, to observe and evaluate the educational program, as a member of the United States Education Mission to Germany. The specialist in nursery-kindergarten-primary education spent 3 months in Germany, at the request of the War Department. assisting in planning better services for young children. The specialist in education for intermediate and upper grades spent 2 months in Austria, at the request of the War Department, observing the schools and preparing recommendations for their improvement as a democratic institution.

At home, members of the staff have assisted in the preparation of materials requested by foreign education officials, in planning school tours for foreign officials, and in arranging for teacher and student exchanges.

SECONDARY EDUCATION

THE AMERICAN HIGH SCHOOLS are one of our greatest national achievements. They are a major contribution to world culture. No other nation ever enrolled such a large proportion of its youth in secondary schools. And yet, we fall short of our ideal of providing equal educational opportunities for all youth. At no time have more than 73 percent of the persons of secondary school age attended school. For many youth attending high school the offerings are calculated neither to challenge their interests nor to meet their needs.

Probably the most significant single accomplishment of the Office of Education during the past year was the leadership given in preparing the Nation's high schools to redirect their efforts.

Evidence that our high schools are not meeting the needs of the great majority of our youth has mounted rapidly since the end of the war. The traditional curriculum that has long served college-bound youth, or youth going into the relatively few skilled trades, is not useful to the multitude of youth who are destined for the numerous unskilled occupations that do not require extended training. Clearly, the Nation's high schools must face the technological age and concede to its demands—by orienting youth psychologically, as well as vocationally, to the workaday world as they will find it upon leaving school. In thus realistically directing the majority of youth toward jobs that are no less essential to the world's work for being routine and unglamorous, the school will fulfill its duty—long overlooked—of recognizing the dignity and necessity of all types of labor.

The preliminary statement that articulates the necessity for changes in the high-school curriculum is contained in the Prosser Resolution of 1945, which the Office of Education is implementing through the joint efforts of the Division of Secondary Education and the Division of Vocational Education. (The resolution and its origin were discussed in detail in the annual report for this Division for the fiscal year 1946.)

During the fiscal year 1946, workers in both general secondary and vocational education held two regional conferences dealing with the resolution; these were followed in 1947 with additional regional conferences and a national conference. All conferences were conducted under the sponsorship of the United States Office of Education.

Culminating action taken at the 3-day national conference, held in Chicago in May 1947, was of decisive and immediate importance.

Secondary and vocational educators (1) assisted in developing a preliminary, comprehensive statement covering the meaning and implications of the Prosser Resolution; (2) agreed upon a series of activities to be carried on at national, State, and local levels in gearing the secondary curriculum to meeting the needs of the times; and (3) outlined a plan for organizing, financing, and administering a 3-phase action program aimed at (*a*) creating a wide understanding of the problem on the part of the public as well as school people; (*b*) stimulating in selected communities within the States specific educational programs designed to meet the particular need and to serve as demonstration centers for other schools as they attempt to provide an education suited to all youth; (*c*) developing such educational services in every community of the Nation.

One of the recommendations, unanimously agreed upon, called for the United States Commissioner of Education to set up a Commission on Life Adjustment Education for Youth, composed of representatives from several of the major national organizations working in the field of professional education. Plans were well under way for the establishment of this Commission by the end of the fiscal year. Both the Division of Secondary Education and the Division of Vocational Education were anticipating an active role in the Commission's program.

Evolved jointly by members of the Secondary Division and other Office staff members was a publication entitled "A Tentative Statement Concerning the Meaning and Implications of the Prosser Resolution." This document contains sections on such areas of secondary education as guidance, citizenship, home and family life, use of leisure, health, tools of learning, work experience, and occupational adjustments. The tentative character of this publication indicates the likelihood that revision will be made as the work of the Commission progresses.

Another project closely related to the work of the Commission is a study of the characteristics of high-school students. Gathering of materials and planning on this project have been under way for some time; recently discussions have been carried on with educational authorities in one State concerning the selection of a specific community in which to study the characteristics of pupils. Such research may be expected to help educators plan the curriculum which would help achieve in fact the ideal of universal secondary education.

Publications

School-and-Work Programs

A study of school-and-work programs was undertaken jointly with the Industrial Division of the Children's Bureau when that agency was a part of the Department of Labor. Final gathering of data and preparation of the report of findings were completed during the year. It is expected that the publication will come from the printer in early fall.

In the bulletin are reported the experiences and problems of 136 school systems which during the war and in succeeding months operated programs for high-school pupils combining school attendance and employment. The report deals principally with the purposes of these programs, their prevalence, the types of arrangements made, the kinds of work undertaken, the controls exercised by the schools, and the attitudes toward the programs by pupils, school officials, employers, and labor representatives. Finally, an attempt is made to evaluate such programs.

Small High Schools

Studies in the broadening of curriculum offerings and of other services of small high schools are made constantly. One of these entitled "Cooperative Planning—The Key to Improved Organization of Small High Schools" was completed during the year. It supplies suggestions on scheduling and administering so as to provide maximum utilization of staff and physical resources with special emphasis on counseling services in small high schools.

A second study was nearing completiton. It is entitled "Cooperative Community Services—The Key to Improved Programs in Small High Schools" and deals with cooperative school-community programs designed to vitalize the programs of these schools.

Other studies relating to this over-all project which are in various stages of preparation are: Use of correspondence courses, State and county supervisory organizations and practices, and area technical schools.

State Administration of School Health, Physical Education, and Recreation—A Status Study

This study was made to determine the State administrative changes in health, physical education, and recreation that have been made since 1940 by new legislation or by official board rulings and regulations. The report, now completed, lists States with directors or supervisors of health education, physical education, and recreation both in State Departments of Education and State Departments of Health. The study summarizes the State legislation and regulations providing for health examinations; describes the nature and dates of first legislation enacted; and gives the present provisions of laws, rules, and regulations for school health and physical education by States. A study is also made of cooperative arrangements set up between State Departments of Health and State Departments of Education to secure improved programs.

Other Studies Completed or in Progress

In addition to a considerable number of statements prepared for publication in professional magazines or as separate pamphlets, several bibliographies were prepared relating to small high schools, education for children of migratory workers, pupil personnel problems, and tests.

As the year closed staff members of the Division were engaged on studies of supervision of teachers, the teaching of United States history, science courses of study, high-school graduation requirements, and an evaluation of secondary school aptitude tests. Some of these studies are in the manuscript stage. Others have progressed only to the point of preparation of preliminary forms and plans.

Service Activities

Service to the Education and Religious Affairs Branch, Office of the Military Government for Germany, the War Department

At the request of the War Department, three members of the staff spent a total of 200 days in Germany making studies and providing consultative service to the Education and Religious Affairs Branch, Office of the Military Government for Germany. The Specialist for Social Sciences served as a member of a committee assigned to help German teachers and administrators reorganize programs in the social studies in order to facilitate the development of democratic citizenship. The report of this committee treats conditioning factors in social education in Germany, goals and principles for social education, and social studies program, the social education of teachers, materials and equipment; and includes recommendations.

The Specialist for Science investigated the use of visual instructional aids in German schools, explored their use in the redirection of German education, and made recommendations for the improved use of visual aids in the schools.

The Specialist for Tests and Measurements investigated and evaluated the methods used in German schools for the selection of pupils to attend secondary schools.

By no means do these projects present a complete picture of the work done in Germany by these specialists. They illustrate, however, a significant type of service which this Division provides for other government agencies concerned with educational problems.

Second Pan-American Congress of Physical Education

As official representative of the Department of State and the United States Office of Education, one staff member attended the Second Pan-American Congress of Physical Education held in Mexico City in October. The Congress formulated a “Declaration of Principles of

Pan-American Physical Education" and treated the educational principles and methodology of physical education, the scientific and medical bases of physical education, the organization of physical education, educational policy and sociology, Pan-Americanism, the teachers of physical education, technical sports, and sports for leisure time.

This Congress established the Pan-American Institute of Physical Education, some of the main purposes of which are: To establish and strengthen physical education relations among the American countries, to study and investigate the matters recommended to it by the congress for presentation and consideration by future congresses, and to distribute the results of its investigations, studies, inquiries, and research in all American countries.

The specialist attending from this Division was elected, as one of the two representatives from North America, to serve as a member of the Planning Committee of the Institute.

Selected Services to Professional Organizations and to the Field

All staff members have engaged extensively in cooperative enterprises involving professional organizations of educators. On the staff is the present president of the National Association of Secondary-School Principals, the vice president of the Middle States Association of Colleges and Secondary Schools, and the secretary of the Cooperative Study of Secondary School Standards. Other offices which were held for part of the fiscal year by members of the staff are president of the National Science Teachers Association, vice president of the American Association for Health, Physical Education, and Recreation, and secretary of the National Committee on Coordination in Secondary Education.

Service as consultants or as members of committees of national, regional, and State organizations of educators was frequently performed. Among professional agencies which were thus served by staff members during the year are:

Alabama State Education Conference.
American Association for Health, Physical Education, and Recreation.
American Association for the Advancement of Science.
American Society for Engineering Education.
American Council on Education.
American Educational Research Association.
American Psychological Association.
Department of Education of the University of Alabama.
Emory University.
Junior Town Meeting League.
Maryland State-wide Principals' Conference.
National Conference of County Superintendents of Schools.
National Council for the Social Studies.
National Council of Geography.
National Education Association.

National Training Laboratory in Group Dynamics.
New York State Science Teachers Association.
Pennsylvania Branch of the National Association of Secondary-School Principals.
Princeton University Bicentennial Conference.
Society of State Directors of Health and Physical Education.
University of New Hampshire Conference on Rural Life Education.

The National Tuberculosis Association and the Athletic Institute requested the Office of Education to organize during the year three conferences on educational problems. For this purpose, they spent $19,000. The proceedings of these conferences are being published.

Individual schools, school systems, and other educational bodies in many regions were supplied with consultant, evaluative, or other types of field service. Examples of agencies of this type which were served are the Cincinnati Board of Education, Indianapolis Board of School Commissioners, New York City Federation of Science Teachers, and curriculum committees in Atlanta and in Fulton and DeKalb Counties in Georgia.

Interagency and Interdivisional Committees

Two members of the Division prepared materials for a Federal Security Agency committee which reported to the President's Advisory Commission on Universal Training. An extensive statement was prepared for the Federal Inter-Agency Committee on Migrant Labor and was printed by that Committee in its report entitled "Migrant Labor—A Human Problem." Other interagency undertakings in which members of the Division have cooperated are the President's Highway Safety Committee and the Conference on Juvenile Delinquency sponsored by the Department of Justice.

Specialists in the Division serve as chairman of interdivisional committees in the following four areas: Health and physical education, social science, science, and rural education. These committees, drawing their personnel from several divisions of the Office, have an important planning function to perform. They plan for the coordinating of the work of specialists in various divisions and for the development of constructive thought regarding studies and activities which ought to be undertaken within the area of interest of each committee. A function almost as important is the trading of experiences and information regarding projects under way in the office and in the field. The coordination of the activities of the various divisions is an important motive in the Office of Education; the interdivisional committees are significant means for effecting that coordination.

Advisory Committee on Secondary Education

The Advisory Committee on Secondary Education is a continuing committee with rotating membership based upon a 3-year term. The committee's membership includes recognized leaders in the field of secondary-school education. Its function is to advise the Division of Secondary Education with respect to: Types of services in which the Office should engage; specific projects, studies, or undertakings which should occupy the time and attention of the Division; and facilities and procedures needed for carrying on the projects, studies, and undertakings.

The membership is as follows:

BERTIE BACKUS, Principal, Alice Deal Junior High School, Washington, D. C.

FRANCIS L. BACON, Principal, Evanston Township High School and Junior College, Evanston, Ill.

CLARENCE E. BLUME, Principal, Central High School, Minneapolis, Minn.

ROY L. BUTTERFIELD, Principal, Benjamin Franklin High School, Rochester, N. Y.

FRANK W. CYR, Teachers College, Columbia University, New York, N. Y.

HARL R. DOUGLASS, University of Colorado, Boulder, Colo.

D. H. EIKENBERRY, Ohio State University, Columbus, Ohio.

PAUL E. ELICKER, Executive Secretary, National Association of Secondary-School Principals, Washington, D. C.

WILL FRENCH, Teachers College, Columbia University, New York, N. Y.

E. D. GRIZZELL, University of Pennsylvania, Philadelphia, Pa.

EARL HUTCHINSON, Director of Secondary Education, State Department of Education, Augusta, Maine.

Rev. M. J. MCKEOUGH, Department of Education, The Catholic University of America, Washington, D. C.

LLOYD N. MORRISETT, University of California, Los Angeles, Calif.

FRANCIS T. SPAULDING, State Education Department, Albany, N. Y.

All members of the committee were present at a meeting in Washington on January 13–14, 1947. As in the May 1946 meeting, when there was adopted a report on guidance and counseling, the discussion of the members found its outlet most often in a consideration of guidance services. The emphasis was upon a guidance service which would be comprehensive in its coverage, reaching all types of schools and all pupils in each school.

It was the opinion of the advisory committee that the Office of Education through its Division of Secondary Education should provide leadership for school workers who are attempting to provide suitable educational opportunities at the secondary school level for all youth. It was suggested that regional conferences would be effective in combating juvenile delinquency and in promoting character education, consumer education, and civic education.

At a second meeting, May 19 to 21, 1947, the committee addressed itself to the question, "What ought to be done about recruitment and training of teachers for the new program in secondary schools?" The following proposals were presented:

1. The training of teachers for the kind of program which is necessary to serve the needs of all must be accomplished mainly by in-service training programs. It would be helpful if the Office of Education were to publicize what is being done in various cities and States in relation to salary increases, increased training requirements, and the like.
2. Campaigns should be launched by lay groups to interest young people in teaching—campaigns based on the ideals of social service as well as upon the desire for adequate remuneration.
3. Teachers should be encouraged to assume community leadership, to attract able young people into teaching, and to secure better conditions for teaching. It was even suggested that a score card be developed so that recognition could be made of States in which teachers themselves were making appreciable progress in professionalizing their work.
4. Some national organization should prepare a bulletin for the use of local school boards on "how to secure and hold good teachers." This bulletin would deal with such subjects as social status, living quarters, tenure, in-service training programs, salaries, promotions, and the like.

VOCATIONAL EDUCATION

THE PAST FISCAL YEAR was especially marked for vocational education by the passage of the Vocational Education Act of 1946 (George-Barden Act), P. L. 586, Seventy-ninth Congress, which was approved by the President on August 1 of that year. This act amends, and in effect supersedes, the act of June 8, 1936, the George-Deen Act.

The new act authorizes appropriation of funds for vocational education in four fields: Agriculture, home economics, trades and industry, and distributive occupations. The major differences between the acts of 1936 and 1946 are that the latter allows expenditures from Federal funds allocated to the States for (1) administration, (2) rental or purchase of equipment and supplies, (3) vocational guidance, and (4) training and work-experience training for out-of-school youth. The new act also increases the total authorization for appropriations to the States from $14,483,000 to $29,301,740.22. The first session of the Eightieth Congress appropriated $17,750,000 for the fiscal year 1948. This figure is in addition to the continuing authorization of $7,167,000 under the Smith-Hughes Vocational Education Act of 1917, and compares with $14,483,000 authorized under the George-Deen Act.

Revision of Policies

Passage of the new act made revision of Vocational Education Bulletin No. 1, *Statement of Policies for the Administration of Vocational Education*, particularly urgent. The bulletin was last revised completely in 1937 although amending statements have appeared from time to time.

The ground was laid during the past fiscal year by eight regional conferences which were attended by representatives of State boards for vocational education and by officials of the Office. When the year ended, the revision had been prepared in tentative form.

Reorganization of Division

A reorganization of the Vocational Division was announced late in 1946. Under the reorganization, the Division is operating with three new branches: State Plans Operations, Program Planning Operations, and Field Service Operations; and the five facilitating services—Agriculture, Business, Home Economics, Occupational Information and Guidance, and Trade and Industry.

TABLE 1.—*Funds available for allotment to States from Smith-Hughes and George-Deen Acts, fiscal year ended June 30, 1947*

Purpose	Smith-Hughes Act	George-Deen Act
Total	[1] $7,285,122.03	[3] $14,483,000.00
Agricultural education	3,058,452.99	4,066,465.00
Trade and industrial education	[2] 3,111,913.15	4,056,857.50
Home economics education		4,051,677.50
Distributive occupations		1,254,000.00
Teacher training	1,114,755.89	1,054,000.00

[1] Includes appropriation for Hawaii and Puerto Rico under separate authorizing acts. Total appropriation Smith-Hughes Act, $7,167,000; Hawaii, $30,000; Puerto Rico, $105,000.

[2] Allotment for home economics included in trade and industrial allotment, not to exceed 20 percent for home economics.

[3] Allotments to the States are made on the basis of this amount as authorized in the act. Actual appropri tion for fiscal year 1947, $14,200,000.

The significance of the State plans branch is that it recognizes these facts: Federally aided vocational education stems from State plans prepared by the State boards for vocational education; and expenditures from Federal funds are made in accord with State plans. The branch reviews State plans; allots funds; audits accounts involving Federal funds; and compiles reports from the States.

The inclusion of the Program Planning Branch is a step aimed to bring about greater coordination of programs in the five federally aided areas: Agriculture, distributive occupations, home economics, trades and industry, and vocational guidance. The chiefs of the five services with other officials in the Division compose the Program Planning Committee. The committee has the responsibility for viewing the needs of vocational education comprehensively.

It is the responsibility of the several services to assist the States in developing and operating their particular phases of the total program, working at all times within the framework of over-all planning done by the Program Planning Committee.

The Field Service Operations Branch carries the responsibility of the Division for cooperating with the States in the development of a comprehensive program of vocational education. The personnel are concerned particularly with assisting the States in (*a*) the development of a complete program of vocational education; (*b*) the preparation and justification of budgets necessary to support such a program; and (*c*) the further development of administrative techniques for program operation.

State Plans Revised

As indicated in the previous section, State plans are the basis on which federally aided programs operate. Plans covering the 5-year period 1947–52 had been submitted to the Federal Office and were undergoing review when the fiscal year ended.

TABLE 2.—*Expenditure of Federal, State, and local funds for vocational education, by type of program, fiscal years 1945–46 and 1946–47*

Source of funds	Expenditure, by type of program				
	All programs	Agriculture	Distributive occupations	Home economics	Trade and industry
1	2	3	4	5	6
1945–46					
Total	$72,806,830,91	$21,293,343.38	$2,232,875.57	$20,370,176.74.	$28,910,435.22
Federal	20,628,072.26	7,270,563.12	967,481.37	5,131,079.63	7,258,948.14
State	18,537,851.34	5,192,794.69	653,160.96	5,499,019.57	7,192,876.12
Local	33,640,907.31	8,829,985.57	612,233.24	9,740,077.54	14,458,610.96
1946–47[1]					
Total	83,235,822.73	24,556,393.68	2,623,491.21	22,425,298.91	33,630,638.93
Federal	21,088,535.85	7,560,510.31	1,036,051.95	5,168,824.46	7,323,149.13
State	22,178,973.71	6,303,690.91	841,659.26	6,341,463.05	8,692,160.49
Local	39,968,313.17	10,692,192.46	745,780.00	10,915,011.40	17,615,329.31

[1] Provisional figures, subject to final audit of State reports.

Prosser Resolution

During the past year the Vocational Education Division participated extensively in the conferences arranged jointly by the Office on the subject of the Prosser Resolution. This is discussed in the report of the Secondary Education Division.

Digest of State Reports

As required by law, the Division each year prepares a digest of annual reports from State boards to the Federal Office. The report for 1946 appeared during the fiscal year here reported.

TABLE 3.—*Enrollment in federally aided vocational classes, by type of program, fiscal years 1945–46 and 1946–47*

Type of program	Enrollment	
	1945–46	1946–47[1]
Total	2,227,663	2,512,105
Agriculture	510,331	584,571
Distributive occupations	174,672	235,087
Home economics	911,816	964,521
Trade and industry	630,844	727,926

[1] Provisional figures, subject to final review of State reports.

Agricultural Education

Veterans' Education

Institutional-on-farm training of veterans under the Servicemen's Adjustment Act of 1944 has been a special concern during the year to the Agricultural Education Service. Based on the development of the program so far, many agricultural educators feel that it has significant implications also for the training of nonveterans.

Under provisions of the GI bill, over 100,000 veterans were enrolled in this type of training by June 1947. H. R. 2181, Eightieth Congress, under discussion at that time was intended to clarify provisions of the GI bill with respect to institutional-on-farm training (H. R. 2181 became Public Law 377 shortly after the end of the fiscal year).

Funds for the operation of this program come from the Veterans' Administration which contracts for these services with State boards for vocational education. State boards in turn reimburse local boards, which employ special teachers. Out of these funds, the State boards employ persons to supervise this program under the direction of their regular staff members.

Improvement of Instruction

As in many other fields of education, it has been recognized for years that teacher-training institutions hold the key to improved programs of vocational agriculture. In 1945, the Office had presented to the Negro Land-Grant College Association the results of a study it had conducted on qualifications of agricultural staffs in 20 Negro colleges. A joint committee of the association and the Office then asked the General Education Board for a special grant to continue this study. The General Education Board acted favorably on the request in 1946. It granted funds for conducting three 10-day conferences, 1 each year beginning in 1947; expenses of 5 consultants who shall visit the colleges and make evaluations and recommendations; and a number of fellowships for which staff members of the 20 institutions shall be eligible. The project is being conducted by a committee of the association, with the director of the Division of Higher Education in the U. S. Office of Education serving as an advisory member.

The rapid trend toward more complete farm mechanization tends constantly to outmode most training courses in farm mechanics for both students and in-service teachers. Following a Pacific regional conference of seven States in May 1946, the Service reported later in 1946 the findings of the conference, which was a result of the joint efforts of the Federal Office and the American Society of Agricultural Engineers. The report in effect serves as a guide to training institutions in bringing their instruction in line with the progress in mechanization and with the needs of students.

Food Conservation Program

The Food Conservation Program which followed a Food Preservation Program and known as the Special Grant operated during the fiscal year. Approximately 3,000 canneries with a capacity of 500 cans per day each were a part in this program.

The Food Conservation Program consisted of education in the production and canning of food; preparing and placing fruits, vegetables, and meats in freezer lockers; and the rendering of lard. During the first three-quarters of the year, approximately 400,000 individuals received instruction in food conservation and at the same time processed approximately 60,000,000 pints of food, rendered over 1,000,000 pounds of lard, and placed 2,000,000 pounds of food in the freezer lockers.

The School Lunch Program was greatly aided by the Food-Conservation Program. Most of the 3,000 stationary canneries were available for this purpose during the year.

Program Evaluation

Evaluating vocational agriculture programs has been a concern of the Federal Office for several years. Studies were begun as early as 1940 in cooperation with various State supervisors. There resulted an evaluation study of 400 local programs which was published during the year.

From the 400 evaluations, 20 evaluative scales were obtained; and under each scale 5 grades of programs were described, ranging from very superior to very inferior. Scale 6, for example, pertains to the organization of Future Farmer chapters. The scales may be used for two main purposes: To revise program standards in Federal and State laws and regulations; and to permit teachers to evaluate all or parts of their local programs.

Promotion of Local Advisory Councils

At the request of the States in the Pacific region, the Service issued Miscellaneous 3227 on *The Advisory Council for a Department of Vocational Agriculture.* Since advisory councils in vocational agriculture are still in a formative stage, the purpose of this document was to make available to the States the experience of agricultural education workers with such advisory councils, together with suggestions for promoting the establishment of such councils.

Student Organizations

To Kansas City, Mo., late in October 1946, came 12,550 Future Farmers of America for their Victory Convention, reported to be the largest gathering of farm boys ever held in the world. Now in its twentieth year, this organization, which aims to develop rural leadership, has continued to grow. Membership at the end of the fiscal year was close to 240,000, 15 percent above the previous year. Chapters numbered about 7,000, an increase of 1,000 over the previous year. Forty-seven States and two Territories are represented.

New Farmers of America, a comparable organization for Negro boys, operated in the States which maintain segregated schools with a membership of over 23,000, about 1,000 above 1946; and about 850 chapters, a slight growth in the year. Attending the Victory Convention of the New Farmers were 250 Negro farm boys.

Both organizations are sponsored by the Agricultural Education Service of the Office of Education, so that in addition to conducting the conventions, the Office conducted regional contests in public speaking, farm mechanics, and farm electrification. In addition, applications were reviewed and recommendations were made to the national board of trustees for awards of American Farmer degrees to 178 students of vocational agriculture.

Other Work

Other activities of the Service during the year included a study of 108 school-operated farms in the States of the Pacific region; development of an educational program for Spanish-American citizens in the Southwestern States—a program now going forward under a grant from the General Education Board; and a cooperative program with the Federal Bureau of Prisons.

Two years' work culminated with the publication of *Better Homes for Negro Farm Families* in 1947. For several years Negro teacher trainers in vocational agriculture and home economics have worked together on plans for assisting rural families in obtaining better homes and better family living. This bulletin represents the joint efforts of a national committee of Negro teacher trainers and the Agricultural and Home Economics Educational Services of the United States Office.

Business Education

Perhaps the foremost leadership problem in business education today is that of organizing into one comprehensive and closely knit program the administration and supervision of all phases of business education—distributive, office, managerial, and professional. The problem arises from the need for developing better integration and coordination of Federal, State, and local activities designed to educate youths and adults for business competence.

Through conferences, publications, and other means at its disposal the Business Education Service during the year endeavored to help solve this problem and to interpret to educators and others the needs and purposes of a total, long-range, and balanced program which provides for economic literacy as well as vocational efficiency.

One member of the staff, for instance, collaborated with two teacher trainers in conducting and reporting a study of current practices considered to be representative of desirable developments now gaining favorable recognition and showing evidence of future growth and significance. The report of this study appeared as a major section of the 1947 *American Business Education Yearbook*, published jointly by two major education associations.

Cooperation with Business Associations

Better business service is the keynote of the day. Many firms and trade associations are employing professional educators to organize training programs for managers and employees. They recognize that quality of business service depends on trained employees, and are looking to the schools not only for better trained personnel, but also for help in developing their own training programs.

Illustrative of cooperative activity carried on by this Service is the preparation of *Paint Power and How to Sell It*. Published by the National Paint, Varnish, and Lacquer Association in April 1947, this 350-page book is addressed to "newcomers in wholesale and retail stores, painting contracting shops, and field selling." A member of the Vocational Division was assigned to work with the association's Committee on Education, and reviewed the book for its educational approach. A teachers' guide to accompany the students' manual was prepared jointly by this same Division member and by the author of the book.

Collaboration in another type of activity is illustrated by the publication late in 1946 of *Retail Job Analysis and Evaluation*, by the National Retail Dry Goods Association. This manual is a "guide for retail stores in . . . analyzing . . . and defining jobs . . . and evaluating them . . . based on standard measurement." It is a collaboration of one author each from the association and from the Business Education Service.

Educators must plan subject matter of courses in light of job content. In many industries, however, there is frequently a lack of agreement among employment officers, job supervisors, and employees on the actual content of the job. The manual therefore aims to assist store managers in making job studies and in conducting educational programs on job studies.

In cooperation with the National Confectioners Association the Service developed a training program for salesmen in this industry. At the end of the year, plans had been devised for organizing classes locally. The training program calls for ten 1-hour discussion periods, under the leadership of an instructor provided through Federal and State or local funds. The Service also cooperated in the preparation of 10 students' manuals and an instructor's outline prepared and printed at the expense of the association.

The Service cooperated with the National Association of Music Merchants in a similar program. *Selecting and Training Salesmen*, a 16-page pamphlet, is based on the assumption that supervision and training are inseparable. Its educational orientation is at once evident; the pamphlet starts with "Teaching Suggestions." A leader's manual also was produced for use in the vocational training of music salesmen. It was prepared jointly by two authors, one from the association and one from the Business Education Service.

Members of this Service also participated in the beginning of a detailed survey of training needs in hotel and restaurant industries, and a study of curricula in food preparation and food service. This work was in cooperation with the Council on Hotel and Restaurant Education.

Cooperation with Education Associations

The staff of the Business Education Service maintains cooperative relations with education associations by serving on joint committees, participating in conferences and meetings, carrying on research, preparing instructional materials, and contributing articles to professional publications. One staff member served as associate editor of the 1947 *Business Education Yearbook*, joint publication of two major business education associations. Another staff member served on the Editorial Board of the *National Business Education Quarterly*. Assistance was given to a national research fraternity in business education in initiating and planning a Nation-wide study to determine (1) basic business and economic competence needed by everybody, and (2) the nature and scope of training needed by those who teach this basic and economic competence.

The Office of Education endeavors to fulfill its duty of planning and promoting studies and investigations designed to aid school authorities in identifying training needs, in preparing instructional materials, and in improving and evaluating instruction. Highlighting research activities for the year was a conference held at the Office of Education for the purpose of exploring areas of business education for which findings of studies and investigations are inadequate although urgently needed. Resulting from the conference was an 8-page publication, *Research in Business Education*, in which are listed 17 groups of problems in need of further study. A plan of cooperation was developed between the Business Education Service and selected colleges and universities whereby graduate theses developed under the direction of these institutions may be planned to meet educational needs as observed by the Office of Education.

Teacher Training

In promoting the improvement of teacher education, the Business Education Service carried on a wide range of activities. Assistance was given to teacher-training institutions and to boards of education on programs for the preparation and professional growth of teachers and supervisors. Staff members of the Service participated in summer sessions, workshops, and special conferences on teacher education. A bulletin, *Plans for Providing Business Experience for Business Teachers*, was developed in tentative form by one member of the staff in cooperation with an advisory committee of educators and businessmen.

Home Economics Education

Vocational education in home economics is construed by the Federal Office to mean education for the vocation of homemaking. As such, it has wide application in training for home and family living. It is not a program for girls only; boys as well as parents in many places participate in the courses. The work of the Division during the past year should be viewed against this broad concept.

Survey of Teacher Supply

Naturally the supply of home economics teachers has not been unaffected by the over-all teacher shortage which became so acute last year. In cooperation with the American Vocational Association, the Home Economics Education Service assisted with a study of factors affecting the supply of home economics teachers. A pilot study was first developed in the summer of 1946. Plans for the National Study were then developed and data collected in the spring of 1947. By the end of the year, data had been tabulated by the Office, but results were still to be published.

College Teaching

Curriculum work with colleges continued, building on studies made cooperatively with institutions in the past. Members of the staff assisted with conferences on curriculum sponsored by the Association of Land-Grant Colleges and Universities in cooperation with the American Home Economics Association. Among these conferences, two of major importance were (1) a conference on the teaching of clothing and textiles held in Washington in the late spring of 1947, attended by representatives of 14 institutions; and (2) a pilot conference of teachers of family relations in college departments of home economics held in Detroit in the summer of 1947 with representatives of 15 institutions. Both of these conferences dealt with such vital problems in college teaching as "How to determine student needs" and "How to adjust teaching problems to meet changing needs." Materials developed in the family relations conference are being prepared for distribution to institutions throughout the country wishing to use them.

Study Credit Practices

Many students who might otherwise enroll for high-school homemaking courses are deterred by college practices, real or assumed, in the acceptance of high-school credits. This was the opinion of a group of State supervisors and teacher-trainers of the North Atlantic region, who subsequently asked the Office of Education to make a survey of such practices in the colleges in that region.

A questionnaire was sent to 167 colleges in the summer of 1946. Returns were received from 127, of which 104, or over 80 percent, reported that they accept high-school homemaking credits. Sixty-seven accept them on the same basis as other credits, and 37 specified limitations. It was found that State universities and land-grant and teachers colleges generally accept homemaking credits. Institutions in the North Atlantic region which do not accept them are mainly women's colleges and liberal arts colleges. All but a few of those which accept credits (99 out of 104) do so for all curricula offered by the institution.

Student Organizations

The Future Homemakers of America, an organization for pupils enrolled in homemaking, is devoted to bringing about better home and family living. This organization, founded in 1945, continued to grow. Comparable figures for the end of the fiscal years 1946 and 1947 are as follows: Membership—1946, 168,259 (revised) and 1947, 216,871; chapters—1946, 4,340 (revised) and 1947, 5,527. In both years, 45 States and 2 Territories were represented.

New Homemakers of America, an organization for home economics pupils in the 17 States maintaining separate schools for Negroes grew from a membership of 19,762 in 1946 to 28,737 in 1947. The number of chapters increased from 579 in 1946 to 790 in 1947.

Future Homemakers is jointly sponsored by the Office and by the American Home Economics Association. Salaries of the national staff, including the national adviser, are paid from funds raised by the membership of the organization. The chief of the Home Economics Education Service of the Office is ex officio permanent chairman of the national advisory boards of both organizations. Regional field agents give professional assistance to both organizations through representation on the advisory boards and in workshops and conferences of national, regional, or subregional character.

Aid to Schools on Equipment

Two facts prompted the revision of an Office publication on physical aspects of high-school homemaking departments: (1) many new school buildings being constructed or planned, in addition to old buildings being remodeled; and (2) equipment being released as peacetime production has gottten under way. The need for aid was expressed in many requests directed to the Office.

The aid took the form of a complete revision of Bulletin No. 181, published in 1935. The new bulletin, *Space and Equipment for Homemaking Education*, incorporates new trends in arrangement and equipping of homemaking departments. It includes floor plans of departments that have been found satisfactory in use. It emphasizes providing for all phases of homemaking by use of all-purpose rooms and in other ways. The information will be equally useful to teacher-training institutions.

At year's end, the manuscript was completed except for the inclusion of suggestions of reviewers—members of the National Advisory Committee on Space and Equipment who have worked with the Office throughout this project.

Homemaking Education in the United States

Homemaking education is offered in about two-thirds of the Nation's public secondary schools, and homemaking courses have been taken by about two-thirds of all high-school girl graduates. *Homemaking Education in Secondary Schools of the United States*, published in 1947, outlines the organization, aims, content, methods, and equipment of homemaking education in this country. This bulletin has been translated by the State Department into Spanish and Portuguese for distribution in Latin-America.

Aid to States on Program Planning

The George-Barden Act presented new problems and possibilities to home economics workers in the State departments of education and in teacher-training institutions. For discussion of these problems and possibilities, especially in relation to research and teacher training, members of the Home Economics Education Federal staff met in a week's conference with State supervisors and teacher trainers from 45 of the States, Hawaii, and Puerto Rico following the American Vocational Association convention in St. Louis in December. This service was supplemented by visits to State departments of education and teacher-training institutions in approximately half of the States to work on problems particularly significant to the respective States and institutions.

Trade and Industrial Education

Apprentice Training

Recently apprentice training for skilled occupations and on-the-job training for occupations not apprenticeable has been stimulated by the veterans' training program, as well as by demands from industry.

Organized apprentice programs have been extended to include about 100 trades. As of the end of the fiscal year, there were approximately 125,000 indentured apprentices—most of whom were receiving instruction supplementary to training and work experience on the job.

Related training for apprentices is the responsibility of State and local boards of education. During the year, the Trade and Industrial Education Service of the Office of Education cooperated with the staffs of a number of State boards for vocational education and of industrial associations in collecting information for the supplementary instruction of apprentices and other on-the-job trainees. This information was distributed to all State departments of education and many local school officials, as well as training departments of industry and the Apprentice Training Service of the United States Department of Labor.

The Trade and Industrial Education Service also laid the groundwork for coordinating future preparation of instructional materials for this type of training by publishing a bulletin entitled "Suggestions Relating to the Preparation of Instructional Materials for the Supplementary Training of Apprentices." A suggested pattern for preparing and publishing outlines of supplementary instructional content for skilled and other occupations also was prepared during the year. It is expected that in the future much duplication of effort among the several States in preparing such materials will be eliminated.

An outstanding project was the development, in cooperation with five State boards for vocational education, of related materials for apprenticeship in six railroad shop crafts of the Union Pacific Railroad. This material is being used in 11 States served by that system. It is expected that similar programs will be developed with several other railroads as a result of this pilot project.

Public Service Training

Training for public service occupations that are trade and industrial in nature is a phase of vocational education in which there is continuing interest. During the year, assistance was given to many States in identifying public service training needs, maintaining and improving State programs, and in training an adequate supply of instructors for such work. Special emphasis was given to firemen's training, in line with the President's Conference on Fire Prevention, as well as to rural electrification job training. Public service enrollments as compiled from reports submitted from the States showed a total of 49,028 persons receiving organized instruction through 2,571 classes held in 1,480 different centers. General areas in which training was offered included fire prevention and fire fighting, guarding people and property, custodial work, school bus driving, generation and distribution of electricity, water supply and sewage disposal, and inspection in the interests of public health and safety.

Study of Trade School Graduates

"What are we getting for our money?" is always a good question. What results from the funds spent for trade training? Certainly a basic measure of successful trade and industrial education programs is the ability of graduates to find and keep employment in the occupations for which they were trained.

Around 1920, a number of North Atlantic States, under the leadership of a member of the Vocational Division, established the precedent of reporting graduate-placement data. These States being heavily industrialized contain a high proportion of trade schools in the Nation.

The report for the class of 1945 was published in May 1947, and was entitled "What Becomes of the Trade School Graduate?" It contains reports from 10 Eastern States, including a total of nearly 11,000 graduates. Primarily because many of the graduates of this class entered the armed forces immediately after graduation, the report does not represent normal conditions. Even under such conditions—nearly 40 percent entered the armed forces after graduation—41 percent entered the trade they trained for, immediately after graduation. In addition, about 6 percent were employed in related occupations utilizing parts of their training, and only about 4 percent entered trades not related to those for which they were trained. Among trades in which women specialize, and therefore not affected by military induction, percentages are shown as follows: cosmetology, 84; dressmaking, 74; and power sewing machine operation, 71.

Analysis of Nursing

Practical Nursing, an analysis of the practical nurse occupation with suggestions for the organization of training programs, was published during the year. This analysis was the result of 2 years of work by a committee made up of representatives of various nursing and health organizations together with representatives of this Office. This is the first complete analysis of the work of a practical nurse undertaken on a national scale, and is considered by professional nurses as a pioneering project of great significance. The publication includes suggestions for organizing courses, selecting teachers, and cooperating with hospitals offering clinical experience. The Government Printing Office reports large sales, including orders from foreign countries, which indicates that the analysis is meeting a real need. A curriculum on practical nurse training to accompany the publication *Practical Nursing* has been partially worked out, in cooperation with a committee appointed by national professional nursing organizations.

Other Work

Advisory service was given to a number of States in the improvement and expansion of their teacher-training programs for trade and industrial education. Emphasis was placed on the unification of formalized courses among the various States in line with program needs.

A study that has attracted considerable attention was one conducted in cooperation with national associations of State supervisors, and with teacher trainers of trade and industrial education. This study, enitled "Analysis of the Functions Performed in Operating a Local Program of Industrial Education," has clarified points of emphasis that are required in the improvement of instruction, and is to form the basis of specific recommendations.

A tentative outline for teaching food subjects in trade schools was prepared in cooperation with the Committee of the Council on Education of the National Hotel and Restaurant Association. Along with this was a special study made of food preparation and service as taught in trade schools and commercial establishments. Two bibliographies were completed; one on painting and decorating, and the other on craft work. The staff collaborated with the United States Department of Labor in the preparation and distribution of *Training for Jobs for Women and Girls.*

Other accomplishments of the staff during the year included: Advisory and training work done in connection with employee-employer relations; increasing the effectiveness of advisory committees for trade and industrial education; improvement of part-time cooperative programs; and studies of teacher-training development.

Occupational Information and Guidance

Several factors have stimulated the demand for assistance from the Occupational Information and Guidance Service in the developing of guidance work throughout the country. The passage of the George-Barden Act, which recognized the need for the extension of this phase of vocational education, brought specific demands from States desiring to take advantage of the new Federal provisions. The Prosser Resolution, extensively discussed during the year as reported elsewhere, gave striking emphasis to the importance of guidance work to general and vocational education, both directly and also in its function as an integrating factor. The role of guidance functions in the further development of vocational education, in such phases as selection, persistence, and employment adjustment, turned the thinking of vocational leaders toward better State and local guidance programs. The new State plans for most States include increased provisions for supervision, for the training of counselors, for research work, and for establishing local programs which can be used as experimental or demonstration centers.

Following prolonged vacancies during the war in State supervisory staffs, programs were reactivated in four States during the year. This brings to 43 the number of States offering supervision in occupational information and guidance. Altogether 13 new State supervisors in this field were appointed during the year. Assistance to these State supervisors in their new duties was a major responsibility of this Service.

Three phases of the year's work deserve special comment: Training guidance workers; evaluating guidance services; and developing guidance techniques.

Training Guidance Workers

Basic to the improvement of guidance services is the training of administrators, teachers, and counselors. The entire faculty must understand the aims of the program. To answer the constant requests from educators throughout the country for information as to the sources of training, the third annual directory of summer courses in guidance and personnel work offered by colleges and universities was compiled and issued. This was a cooperative project with the Higher Education Division.

Other work in this area included consultative services in the training of counselors in three States: Connecticut, Georgia, and North Carolina. In addition, a bulletin on teaching occupational information was in process of preparation, and was about one-third completed at the end of the year.

Evaluating Guidance Services

Program evaluation is especially pertinent in the field of guidance. Relatively few evaluation studies of a total program of guidance have been available in the past. To shed light on this problem, the Service undertook research into the literature in the field, classifying it into seven groups according to the method used by the investigator. This study was issued at the end of the year in tentative form as a mimeographed document.

School administrators called upon the Service for evaluations on two occasions during the year. The Service evaluated the guidance program offered at the National Training School for Boys in Washington, D. C. The State of Virginia requested a more elaborate study of the 5-year accomplishments of the Richmond Consultation Service. This latter study is still in progress.

Developing Guidance Techniques

Of various techniques in use, testing in particular calls for professional know-how. The odds are great, especially in small schools, that no faculty member has more than limited training on the subject. Under such circumstances testing is subject to maladministration and results are subject to misinterpretation. To aid in meeting that problem, the Service prepared during the year, with the assistance of a committee of nationally known leaders in the field, a bulletin entitled "Guidance Testing." It is addressed to counselors faced with the task of carrying on a testing program. This manuscript was ready for publication prior to the year's end.

To demonstrate a testing program in action, the Service conducted a series of workshops in guidance testing in various parts of Wisconsin. The workshops had the dual purpose of assisting that State and of developing good practices applicable in other States.

Occupational Information

Because trends in industry and in job opportunities are constantly developing, new information is as constantly being produced. On the other hand, counselors need guides to the vast informational resources available. They also need suggestions on the use of the materials. To serve these purposes, *Guide to Occupational Choice and Training* was published during the year.

To provide guidance workers with additional information, 12 occupational briefs and bibliographies were issued during the year. Titles in the former group include: Designer, Jewelry Workers, and Secretary. Titles in the latter include: Government Publications; Occupations; Reading List for Counselors; and Guidance Bibliography.

Assistance to Professional Groups

An important phase of the work of the Service is always that of assisting groups, organizations, and agencies connected with the professional development of the field, although not part of State or local educational units. In addition to the Prosser committee, already mentioned, substantial assistance was given to the Southern States Work Conference, a voluntary organization composed of professional educators in 14 Southern States. The National Vocational Guidance Association was aided not only by participation in its meetings but also by several contributions to the magazine *Occupations*. The National Council of Chief State School Officers was assisted through consultation services to its committee on guidance services. Illustrative of the scope of organizations assisted, the full list of which would be too long to mention here, are the National League of Nursing Education, the National Council of Teachers of Mathematics, and the Boys' Clubs of America.

HIGHER EDUCATION

The Current Situation in Higher Education

HIGHER EDUCATION in the United States experienced the greatest growth in enrollments during 1946–47 that has ever been recorded in any one year in any country. The 2,078,095 students estimated to be in attendance at some 1,700 colleges and universities in the autumn of 1946 represented a 100 percent increase over the enrollment of the preceding year, and a 50 percent increase over the peak enrollment of prewar years. The expenditures for educational and general purposes in institutions of higher education in 1946–47 were slightly more than 1 billion dollars; this sum represented an all-time high for the financial support of higher education.

The tremendous and sudden expansion in the demands for higher education have required the introduction of many emergency measures in colleges and universities throughout the country. The staff members of the Division of Higher Education have been active during the year in helping authorities meet the emergency and plan their programs for carrying on the best possible educational services, not only in the current year but in the years that lie ahead.

Veterans taking advantage of the educational benefits under Public Laws 16 and 346 have in large part accounted for the increase of college enrollments. Slightly more than half the college population in the fall of 1946 consisted of veterans, and the proportion of veteran students promises to continue high for several years to come.

Veterans have proved to be especially capable students. Careful analyses of their work in many institutions indicate that, as a group, they maintain grades that are in most cases above the average for the entire student body.

Plant space for the housing of the increased numbers of students has been extremely limited. The temporary facilities provided by the Federal Government, through the transfer of surplus war properties, helped ease the emergency, but they do no solve the problem permanently. Most institutions are still unable to give students the kinds of accommodations that were available in prewar years—for rooming quarters, laboratories, classrooms, and library reading rooms.

Even more serious than the shortage of plant facilities has been the shortage of qualified faculty members. Graduate school enrollments, greatly reduced during the war period, did not produce new faculty members in normal supply, and significant numbers of college teachers who entered military service, industry, or Government work during the war, have not returned to their teaching posts. Under these conditions it would have been difficult to fill the normal prewar number of positions with qualified teachers; under the impact of unprecedented enrollments the staffing of the instructional program has proved to be an extremely serious problem.

The shortage of college teachers has necessitated greatly increased loads for faculty members, as well as the employment of some teachers whose qualifications are not equal to those formerly considered requisite for college-level instruction. Acceptance of some new instructors who do not have the highest academic qualifications has not resulted in serious deterioration in the quality of instruction, however, since most of these new teachers have been assigned to classes at the freshman or lower division level, where the bulk of the increased enrollment is concentrated and where specialization of subject matter has not reached a high degree.

The overloading of instructors has involved not only a lengthened teaching schedule but also an increase in the size of classes, sometimes to almost incredible numbers. The spirit of the faculty members in accepting these overloads has been admirable, but such an arrangement must clearly be considered temporary in spite of the fact that the prospects for having a sufficient number of qualified teachers during the next few years are decidedly dim.

A further complication in the faculty situation has arisen from the fact that institutional revenues have not increased in proportion to the numbers of students and the rise in the cost of living. While there has been some general tendency to adjust the faculty salary scale upwards, in few institutions have such adjustments been equal to the increase in the cost of living. As a result, college teachers today are carrying these heavy overloads of work and are receiving less remuneration, in terms of purchasing power, than they did in prewar years. This situation militates against the recruitment of the kinds of personnel needed for faculty positions.

Although the situation during 1946–47 was extremely difficult for all concerned with higher education—students, faculty members, and administrative staff—even greater difficulties are anticipated within the next 2 or 3 years. The overcrowded campus facilities must be expanded to care for still further increases in enrollments. As the wave of increased enrollments moves along, from its present concentration in the freshman year into the upper divisions and graduate schools, the demands for specialized equipment and laboratory facilities and for faculty members of the highest levels of scholarly competence will be much more difficult to meet than the shortages that have been met and in some measure overcome in 1946–47.

Question was frequently raised with the Division of Higher Education concerning the numbers of qualified young people who were unable to obtain admission to college or university during 1946–47. Definite statistics to answer this question are not available, and to obtain them would require a large-scale project beyond the resources at hand. It seemed feasible, however, to take a poll of the opinions of educators who were in a position to observe the situation in their own States; and such a poll was undertaken by the Division from a well-distributed sample of educators throughout the country. About 80 percent of the respondents were of the opinion that practically all qualified students in their States were able to obtain entrance to college. It was apparent, however, that the situation was by no means uniform throughout the country, and that in certain States considerable numbers of well-qualified students could not obtain admission to any college or university. There were also probably large numbers of students who managed to get into some college, but not into the one they wished to attend, or not into the curriculum they were chiefly interested in pursuing.

Great interest has been shown, both by institutions of higher education and by large numbers of interested citizens, in the probable future trends of enrollments. The institutions are concerned about the practicality of expanding their facilities on a permanent basis. Parents are concerned about the opportunities for their younger children to enter college in the years that lie ahead. The members of the staff of the Division of Higher Education have been besieged with requests for predictions of future trends in college enrollments. Estimates of this nature have been prepared, with the assistance of staff members in the Research and Statistics Section. The considered opinion is that college enrollments will likely never drop below levels attained in 1946–47, and that further increases may be expected, at least during the period of the next few years when large numbers of veterans will continue to take advantage of their educational benefits under Public Laws 16 and 346.

Higher Education Periodical

Higher Education, the journal established by the Division of Higher Education, provided one of the chief means for disseminating information from the Division during the year. Eighteen issues of Higher Education were published, on a semimonthly basis, during the academic year from September through May. These were distributed to a mailing list of about 10,000 institutions, agencies, and individuals.

As a service to institutions of higher education, the Division has undertaken to keep abreast of the actions of the Congress that affect colleges and universities. A staff member of the Division prepares notes on legislative developments, based on information appearing in the Congressional Record and other sources. These notes are published regularly as a special feature of HIGHER EDUCATION.

Land-Grant Colleges and Universities

The Division of Higher Education has a particularly close relationship to the land-grant colleges and universities, because of the responsibilities of the Office of Education, handled through this Division, for administering the land-grant college funds. Reports on the distribution of the Morrill-Nelson funds have been filed as required by law. The annual reports for the fiscal years 1944 and 1945, publication of which was delayed by wartime conditions, have now appeared, and the annual report for 1946 has been prepared.

During the year 1945–46, the most recent date for which information is available, the 69 land-grant institutions enrolled 296,077 civilian and 13,793 military students in residence, a total of 309,870. This was an increase of 116,555, or 60 percent, from the year 1944–45. The increase in the enrollment of men was 106 percent, and in the enrollment of women, 15 percent. A total of 27,474 undergraduate and first professional degrees and 4,090 graduate degrees were conferred. These numbers represent increases of 20 and 30 percent over the comparable degrees granted in the previous year.

The income of the land-grant colleges and universities for general and educational purposes for the year 1945–46 amounted to $277,646,602, a slight decrease (0.2 percent) from the income in the previous year. Of this income, 27 percent was from Federal sources. An additional amount of $38,061,194 was received for physical plant and $9,358,806 for additions to endowment.

Staff members of the Division visited six land-grant institutions in order to study their programs and learn about new developments in their organization and activities. Members of the staff attended the annual meeting of the Association of Land-Grant Colleges and Universities and the Conference of Presidents of Negro Land-Grant Colleges.

Two studies of special interest to the land-grant colleges were initiated. One is a survey of curriculums of less-than-degree length in the land-grant colleges and universities; the other is a study of trends of tuition fees. Both were in process at the end of the fiscal year.

Members of the Division are participating in the planning of a large-scale project to improve agricultural instruction in the land-grant colleges for Negroes. This project, under the general direction of the Conference of Presidents of Negro Land-Grant Colleges, is being financed by a grant from the General Education Board.

Howard University

The Office of Education is legally charged with responsibility for an annual inspection of Howard University. However, such an inspection was not undertaken during 1946–47, pending clarification of the responsibilities of the Office in this respect.

Certain of the staff members of the Division of Higher Education participated in a survey of Howard University. Later in the year the Director of the Division, at the request of the Federal Security Administrator, submitted his review of the recommendations made in the survey report; he also outlined plans for improving the relationship between the Federal Government and Howard University.

Teacher Education

The shortage of teachers remains one of the most critical problems in the public-school systems of this country. Preparation of teachers is a function of institutions of higher education and therefore the Division of Higher Education has a deep interest in this subject.

Circular 209, *Teacher Placements, Registration, and Related Services*, has been revised and is now available. The circular entitled *Suggestions to Prospective Teachers* has also been completed. The preparation of uniform blanks on which State departments of education may request the information they need for teacher certification is close to completion. Throughout the year materials on the extent of the teacher shortage and the means to meet it were assembled and disseminated to scores of individuals and agencies interested in the problem.

Education of Negroes

The large-scale project, involving the preparation of materials and personnel for the education of Negro adult illiterates, has been successfully carried through the first year of its operation, according to schedule. This project has been financed in part by a grant from the Carnegie Corporation. It has such obviously valuable potentialities that the Carnegie Corporation has provided an additional grant of $25,000 to carry it through the second year of operation. Six institutions of higher education are cooperating directly in this project. It has attracted wide interest because of the promise it gives of developing important new materials and methods in the education of adult illiterates.

The bulletin, *Education of Negro Leaders*, has been completed for early publication. The study is an outgrowth of an analysis made in connection with the survey of Howard University.

Dental Education and Research

In March 1944, the American Association of Dental Schools adopted a comprehensive plan for the continuous study of the dental curriculum and dental teaching and appointed a standing committee to have charge of the work. Three committees—one each for histology, oral diagnosis, and radiography—have prepared reports on the teaching of these subjects in dental schools. These reports have been the subject of conferences at annual meetings of the American Association of Dental Schools. The reports and the conference proceedings have been published. The committee on teaching, under the chairmanship of a Division staff member, has supervised this work. It has also selected committees on biochemistry and orthodontics to report on instruction in these fields.

The Committee on Research of the American College of Dentists awarded grants-in-aid for research on dental problems, most of which is carried on in dental schools. The Committee on Student Recruitment considers ways of encouraging capable young people to enter colleges of dentistry. A staff member of the Division is on both committees.

The Committee on Examinations of the National Association of Dental Examiners has been studying plans for establishing a pool of examination questions for use by State dental examining boards. The same Division staff member is also on this committee. During the year it collected questions on oral pathology and reported its experience to the association.

Pharmaceutical Survey

Cooperative relations by the Division in the field of professional education are illustrated by still another project. Working on a part-time basis, a Division staff member has served as assistant director in charge of curriculum studies of the Pharmaceutical Survey, a 3-year study being conducted under the auspices of the American Council on Education. The curriculum study is one part of an extensive study of all aspects of pharmaceutical education.

Faculty Salaries

One of the critical issues in higher education has to do with the salaries of teachers. No recent data are available on faculty salaries, and to obtain such information on a complete basis would have involved an expensive job of collecting original statistical data. To meet the situation, a study was undertaken during 1946–47 concerning the administration of faculty salaries. As a basis for this study, colleges and universities were asked to submit copies of their rules and regulations governing the payment of faculty salaries, including the scale for salaries in the various academic ranks, the periods for which salaries are paid, and the kinds of regular deductions made from salaries. Returns from almost 650 institutions were received and analyzed. A preliminary report has been prepared for publication in HIGHER EDUCATION in the fall of 1947.

A special study of the salary policies of the group of colleges that have engineering schools was made from the data collected, and was reported in April in a brief mimeographed circular addressed to the deans of engineering colleges. A special analysis of salary schedules and policies in colleges for Negroes was also prepared from the source material collected in the study of faculty salary administration; it was reported at the meeting of the Association of Negro College and University Business Officers and will be published in the proceedings of that organization.

Educational Directories

The preparation of the annual edition of the *Educational Directory*, Part 3, Colleges and Universities, is a responsibility of the Division of Higher Education. The 1946–47 edition, concerning 1,700 institutions of higher education, contains information that was checked for authentication by the individual institutions concerned. Of the 1,700 institutions, 783 were classified as colleges and universities, 266 as professional schools, 215 as teachers colleges and normal schools, and 436 as junior colleges. Classified according to control, 364 were under State authorities, 199 under district or city control, 445 under private boards, and 692 under the control of religious denominations. Institutions for men numbered 223; those for women 275; those for both men and women 1,202; and those for Negroes 107.

During the year a special *Directory of Institutions Offering Graduate Work* was prepared and published, in which 324 colleges and universities offering programs for the master's or doctor's degree were listed. The *Directory of Graduate Schools* has been favorably received and it is expected that a revised edition will be necessary at regular intervals hereafter.

In addition to these published directories, the Division of Higher Education maintains almost 200 different lists of institutions classified according to various criteria, such as those offering particularized curriculums, or those that have been recognized as distinguished for their graduate programs in certain specific fields of study. These lists are in mimeographed or typewritten form and are useful in answering inquiries from persons who wish to know what institutions of particular types are available.

From time to time new lists are added as requests come in for classifications not previously compiled. The existing lists undergo constant revision as conditions change.

Engineering Education

The project for the maintenance of a clearing house for information regarding engineering and technical education, initiated during the preceding year, has been carried forward. This particularized interest in engineering education is in part an outgrowth of the cooperative relationships that were developed between the engineering colleges and the United States Office of Education during the operation of the Engineering, Science, Management War Training Program. The staff member especially concerned with engineering education has maintained close contact with the various engineering societies and has served on committees of those organizations. During the year he visited six engineering colleges to observe their programs and to obtain ideas as to the ways in which the emergency caused by the rapid increases in enrollments could be met.

Special interest has been maintained in the reporting of enrollments in engineering colleges. A staff member of the Division has served as a member of the special committee of the American Association of Engineering Education on enrollment trends. In addition to the usual reports on numbers of students in engineering colleges, statistics have been collected and compiled on the number of preengineering students in the various colleges, universities, junior colleges, teachers colleges, and other nonengineering institutions throughout the country. The data on preengineering students, which have never before been available, showed a total of approximately 77,000. These figures have proved to be of great interest to those responsible for engineering education, who need to estimate well in advance the nature and extent of the demand for instructional service at the various levels of the engineering curriculum.

Advisory and Consultative Services

A large part of the work of the Division of Higher Education consists of advisory and consultative services to individuals, institutions, and organizations. During the year the Division has rendered special services to two important temporary Federal agencies, the President's Commission on Higher Education, and the President's Advisory Commission on Universal (Military) Training. Staff members are in touch almost daily with members of other agencies of the Federal Government who are seeking advice and information on problems related to higher education.

During 1946–47 the 7 members of the professional staff attended a total of 128 meetings of national, regional, State, and institutional groups; addresses were made before 83 of these meetings.

The Director of the Division directed a comprehensive survey of higher education in Maryland during the period between July 1946 and January 1947. This survey was made at the request of the Maryland Commission on Higher Education, appointed by the Governor of the State in pursuance to a legislative act passed in 1945. Arrangements for the direction of the survey, which was under the auspices of the American Council on Education, had been completed prior to the appointment of the new Director of the Division of Higher Education. He therefore did his work on the survey while on leave without pay from the Office of Education. The survey report has been published by the American Council in a volume of 384 pages.

The Director of the Division and the Specialist in Negro education participated, during the fall of 1946, in a survey of public higher education in Florida. This survey was part of a comprehensive study of the entire educational program in Florida under the auspices of the Citizens School Committee. On the basis of this study, the Citizens Committee has been able to bring about certain significant changes in the institutional pattern of higher education in Florida.

VETERANS EDUCATIONAL FACILITIES PROGRAM

THE ENACTMENT of the Mead bill on August 8, 1946, as Public Law 697, Seventy-ninth Congress, threw a heavy responsibility on the Office of Education for examining and approving Justifications of Need for surplus Federal properties requested by schools and colleges in order to provide a program of education for veterans. This law made the Federal Works Agency responsible for supplying surplus buildings, equipment, and supplies, as they could be made available by the War Assets Administration, wherever the Commissioner of Education certified that an urgent need existed or impended for their use in educating veterans.

Prior to the initiation of the program under Public Law 697, the Office of Education had established a Surplus Property Utilization staff which has cooperated with educational institutions and the War Assets Administration in the disposal of real property and with the Army, Navy, and other owning agencies in the disposition of property they were authorized to donate to educational institutions without regard to the enrollment of veterans. These activities are described elsewhere in this report.

Responsibility for operating the Veterans' Educational Facilities Program authorized by Public Law 697 was assigned to the Division of Higher Education. The Specialist in State-Wide Programs in this Division was named as chief of the VEFP section to direct the program. It has been organized so as to permit a decentralized administration. A small staff has been maintained in Washington, and some 35 persons were assigned to duty in 9 regions of the United States. These field staffs are housed with the staffs of the Bureau of Community Facilities, Federal Works Agency, in New York, Washington, Atlanta, Chicago, Kansas City, Fort Worth, Denver, San Francisco, and Seattle. The fact that they have power to make decisions on the requests submitted by school and college administrators has enabled educators to deal on a face to face basis with responsible representatives of the Commissioner of Education.

As of June 30, 1947, 1,650 educational institutions had submitted statements justifying their need for buildings and equipment. Of this total, 1,124 institutions had requested 33,000,000 square feet of floor space and 529 institutions had requested only equipment and supplies.

The VEFP staff had approved 20,500,000 square feet of the requested space and the Federal Works Agency had entered into agreements with the institutions to provide 13,500,000 square feet of the space that had been approved. Approximately 4,500,000 square feet of the contracted space is allocated to classrooms, 2,200,000 to laboratories, 1,000,000 to administration buildings, 1,000,000 to cafeterias, 500,000 to libraries, 300,000 to infirmaries, and 4,000,000 to a miscellaneous group of buildings.

The Seventy-ninth Congress appropriated $75,000,000 for the use of the Federal Works Agency in dismantling, removing, and reerecting buildings needed by educational institutions in providing a program of education for veterans. At the close of the fiscal year the Federal Works Agency had allocated $73,000,000 of the appropriation to construction projects. Many of these buildings are already in use on school and college campuses and it is expected that most of those for which funds have been allocated will be ready for use when schools open in the fall of 1947. In order to assure an equitable distribution of the facilities that could be provided with the above appropriation, funds were allocated for use in each State according to the ratio the veterans of a State approved for a program of education and training bore to the total number of such veterans in the United States.

The 1,650 institutions, by June 30, 1947, had filed requests for instructional and maintenance equipment which by War Assets values would aggregate $200,000,000. Slightly more than half of these requests were approved by the representatives of the Commissioner of Education. At the close of the fiscal year the War Assets Administration had transferred to the Federal Works Agency under the provisions of Public Law 697 approximately $20,000,000 worth of equipment and supplies for use in educational institutions which needed them in providing a program of education for veterans. In addition, the War Assets Administration had received purchase orders from educational institutions for $18,000,000 worth of equipment, for which they had been approved by the United States Office of Education through the Federal Works Agency. The War Assets Administration supplied this material at a 95 percent discount from its fair value.

The above transactions provided educational institutions with approximately 15,000,000 items of badly needed equipment. Electrical and metal-working machinery accounted for $7,000,000 worth of the property; electronics equipment $4,000,000; office and classroom furniture $2,000,000; professional and scientific instruments $1,000,000; lockers, filing cabinets, and other metal products equipment $500,000; motor vehicles $500,000; aircraft $500,000; plumbing and heating equipment $500,000; fire control equipment $500,000; refrigerating and air-conditioning equipment $300,000; glass, clay, and stone equipment $200,000. Other items ran the gamut of equipment ordinarily used in schools and colleges.

The building program is expected to be completed by December 31, 1947, but equipment from war surplus materials is expected to be provided for educational institutions engaged in a program for veterans until June 30, 1948.

CENTRAL SERVICES

DURING THE YEAR the work of the Central Services Division was carried forward by its four constituent sections, namely, Research and Statistical Service, Information and Publications Service, Office of Education Library, and Administrative Management and Services. High-light activities of these sections are reported as follows:

Research and Statistical Service

Speed and Saving

Steps were taken by the Research and Statistical Service during the year to expedite the tabulation and reporting of vital statistics on education. Following recommendations of educators and technicians made in a national conference called by the Office of Education in October 1945, this Service changed from manual to machine tabulation and officially launched a program which should speed the supplying of statistics on American education in the future and reduce the cost.

Basic periodical statistics of public high schools and of land-grant colleges were tabulated by machine in 1947, and plans were made to use the same machine tabulation method for statistics of city schools, higher education, and university and college libraries.

Scientific Sampling

Thus for the first time in many years of statistical work, the Office of Education has been enabled to initiate a major program of statistical tabulation by machine on a large scale. The new tabulation process makes it possible for the Research and Statistical Service to do scientific sampling studies of specific use to the Nation's 27,000 public high schools, 1,700 colleges and universities, 3,000 city school systems, and 1,700 college libraries.

Renewed Emphasis

Efforts to develop more uniform records and reports, impeded during the period of war, were given new impetus during the year. Two conferences were held to stimulate uniform recording and reporting for pupil transportation and use of visual aids.

Plans were made to give continued emphasis to provision of professional statistical advice and service through use of the sampling technique, simplification of forms for adaptation to machine tablulation, and otherwise to meet the needs of educational specialists and the profession generally for more current statistical data.

Completed

A record Nation-wide survey of college and university enrollments was completed by the Research and Statistical Service in a period of 6 weeks during the year. Statistical studies prepared by the Service and published are included in the listing reported by the Information and Publication Service.

For Research Studies

The Service participated in meetings of the Interdivisional Committee on Research and Statistics held during the year to integrate research and statistical activities of the Office of Education with the needs of the various divisions.

Cooperative statistical service was provided by the section for the following studies of other Divisions: High-School Principals; Guidance Practices in the Richmond, Va., Area; College Facilities; College Salaries; Potential Engineers; Survey of American History Teaching; and Survey of Home Economics Teachers.

Information and Publications Service

In the Public Interest

The Citizens Federal Committee on Education—which acts in an advisory relationship to the Office of Education, and consists of members selected by various groups representative of broad segments in American life—requested the Office to seek help in presenting the facts on the school crisis to the Nation. The Citizens Federal Committee, subsequently, with some assistance from the Information and Publications Service, was able to obtain the cooperation of many business firms, radio broadcasters, magazine and newspaper editors in such an effort. As a result, messages were broadcast over 700 national radio programs; articles appeared in many of the leading national magazines and in newspapers across the country—all in the public interest.

Diffusing Information

Long- and short-term recommendations for educational public relations were recommended at a national advisory conference called by the Information and Publications Service. These recommendations were made by leading educational editors and information specialists, after analysis of present United States Office of Education policies. Preliminary plans for a survey of educational journalism to discover trends and compile data for a printed report also were made by this Service.

The long-established function of this Service in preparing for printing and publishing the research findings of Office of Education specialists was continued. Approximately 2,500 printed pages were edited, and 53 publications came from the press during the year. These included bulletins and leaflets making available research information to promote education at all levels. In addition the historic biennial survey statistics for State and city school systems and of higher education were also published, as well as the *Educational Directory*, and two official periodicals—SCHOOL LIFE and HIGHER EDUCATION.

Carrying further the original mandate of Congress to "diffuse such information as shall aid in the establishment and maintenance of efficient school systems . . .," the Information and Publications Service answered over 20,000 letters and 9,000 telephone requests and prepared 25 educational news releases. Specific help was given 44 different agencies of the Government in bringing information of interest to the schools and colleges.

SCHOOL LIFE, official monthly journal of the Office, was made available to superintendents of city schools in cities of 2,500 population and over, and to all county superintendents and State education officers. HIGHER EDUCATION went regularly to all college and university presidents. Revision of high-school mailing lists was begun during the year so that appropriate Office of Education information may be made available to every high school in every community. The Service continued cooperation with the Superintendent of Documents in effecting Nation-wide announcement of new publications in education.

Publications off the Press During 1947

BULLETINS, LEAFLETS, ETC.

Education in Peru. Bulletin 1946, No. 3.
Education in Costa Rica. Bulletin 1946, No. 4.
How to Build a Unit of Work. Bulletin 1946, No. 5.
Education in Colombia. Bulletin 1946, No. 6.
High-School Credit and Diplomas Through Examinations and Out-of-School Experiences. Bulletin 1946, No. 7.
A Curriculum Guide to Fire Safety. Bulletin 1946, No. 8.
Engineering Science and Management War Training—Final Report. Bulletin 1946, No. 9.
Vocational Training for War Production Workers—Final Report. Bulletin 1946, No. 10.
Rural War Production Training Program—Final Report. Bulletin 1946, No. 11.
Program of Education and Training for Young Persons Employed on Work Projects of the NYA—Final Report. Bulletin 1946, No. 12.
Training Films for Industry. Bulletin 1946, No. 13.
Student War Loans Program—Final Report. Bulletin 1946, No. 14.
Inter-American Understanding and the Preparation of Teachers. Bulletin 1946, No. 15.

Statistics of Land-Grant Colleges and Universities, Year Ended June 30, 1944. Bulletin 1946, No. 16.

Public Relations for Rural and Village Teachers, Bulletin 1946, No. 17.

Vocational Education of College Grade. Bulletin 1946, No. 18.

Planning and Equipping School Lunchrooms. Bulletin 1946, No. 19.

A Bibliography of Materials for the Teaching of English to Foreigners. Bulletin 1946, No. 20.

Statistics of Land-Grant Colleges and Universities, Year Ended June 30, 1945. Bulletin 1947, No. 1.

Visiting Teacher Services—Report of a Conference Called by the Commissioner of Education and Held in the U. S. Office of Education, Washington, D. C., June 1945. Leaflet No. 75.

Federal Government Funds for Education, 1944–45 and 1945–46. Leaflet No. 77.

Biennial Surveys of Education, 1942–44.

Statistical Summary of Education, 1943–44. Chapter I.

Statistics of State School Systems, 1943–44. Chapter II.

Statistics of City School Systems, 1943–44. Chapter III.

Statistics of Higher Education, 1943–44. Chapter IV.

Educational Directories

Associations and Directories, 1945–46. Part IV.

County and City School Officers, 1946–47. Part II.

Colleges and Universities, 1946–47. Part III.

Vocational Education

Guide to Occupational Choice and Training, Vocational Division Bulletin No. 236.

Better Homes for Negro Farm Families.

Digest of Annual Reports of State Boards for Vocational Education, Fiscal Year Ended June 30, 1946.

Homemaking Education in Secondary Schools of the United States.

Practical Nursing, Misc. No. 8.

Suggestions Relating to the Preparation of Instructional Material for Supplementary Training of Apprentices.

Miscellaneous

Annual Report of the Federal Security Agency—Section Two, U. S. Office of Education, 1946.

Expenditures per Pupil in City Schools, 1944–45.

Fellowship Program for Teachers From the Other American Republics.

Radio Script Catalog.

Periodicals

School Life (10 issues—October 1946–July 1947, inclusive).

Higher Education (18 issues—September 2, 1946–May 15, 1947, inclusive).

Reprints

School Life:

- Financing the Public Schools of Kentucky. June 1946.
- The Far East—Selected References for Teachers. July 1946.
- The Case of Science in the Elementary Schools. July 1946.
- Elementary Science Objectives. October 1946.

Techniques in Teaching Current Affairs. November 1946.

Acts of the 79th Cong., 2d sess., Relating to Education. December 1946.

Iran: Selected References. December 1946.

Elementary Science Series. Four articles, July 1946, October 1946, January 1947, April 1947.

Health Education for the Elementary School. Four articles, November 1946, January 1947, February 1947, March 1947.

Statistics on Pupil Transportation. May 1947.

Summer Study Programs in International Relations. May 1947.

HIGHER EDUCATION:

School Organization in Latin America. January 1, 1947.

Evaluation of Foreign Student Credentials by U. S. Office of Education. May 1, 1947.

American Education Illustrated

An outstanding production of the Service during the year was a 15-panel exhibit titled *Education in the United States* prepared at the request of the Department of State for display at the first general conference of the United Nations Educational, Scientific, and Cultural Organization held in Paris, France, November 19–December 10.

This demountable-panel exhibit, in color and photograph, and with captions in both English and French, dramatized American education goals, scope, opportunities, and organization for the representatives attending the conference from all nations of the world. As a traveling exhibit following the conference, this graphic display carried the story of American education to peoples of many French provinces.

Another UNESCO exhibit prepared by the Service stressed the theme of relief and rehabilitation through education. This display showed pictorially and graphically how American education has cooperated with non-Government agencies during the postwar period in helping attack such problems as housing, health, hunger, and illiteracy throughout the world.

Graphic work included the completion of 90 lay-outs, with special illustrations or format for Office publications; 27 exhibits or posters; 83 charts and maps; the filling of 53 requests for 842 educational photographs; and 117 miscellaneous jobs.

Office of Education Library

New Demands for Service

Postwar developments in education both in this country and abroad have patterned the types of service rendered by the Office of Education Library during the past year. Requests and provided service reflected the renewed national interest in education, the school crisis, veterans' education, Federal aid legislation, universal military training, UNESCO, and reestablishment of libraries abroad.

More than 65,000 books were used in the Library reading room by 8,100 readers during the year, an increase from 25,000 books used during the 1946 fiscal year. Approximately 5,700 books were circulated outside the Library, many through the 2,600 interlibrary loans recorded. Mail and telephone reference calls went over the 12,000 mark during the year. Added to the Office of Education Library collection were 11,000 books and 10,000 single issues of educational periodicals. Many book publishers and the Library of Congress cooperated in supplying 700 textbooks to keep current the Library's collection of elementary and secondary school textbooks.

To Other Countries

Through the Department of State many new catalogs of institutions of higher education in other countries were acquired for reference use in this country, and American college and university catalogs, collected by the Library specifically for the purpose, were made available for use in United States embassies, United States information offices, and other Department of State centers throughout the world. Also on the international service level, the Library cooperated with the Library of Congress in compiling a suggested purchase list of books in secondary education for the Biblioteca Central of the Consejo Nacional de Ensenanza Secundaria y Preparatoria, Montevideo, Uruguay. Another list, prepared for Chinese universities, was reviewed at the request of the American Library Association.

Providing services and facilities during the year chiefly to the Office of Education staff to further research programs, the Library also gave assistance to colleges and universities, learned societies, educators, students, and others. Also sharing in Library service were other departments of Government, the Congress, business and professional organizations, other libraries, and the general public.

Theses and Courses of Study

The Library's loan collection of theses received from colleges and universities throughout the United States was increased by 202. This collection now includes 6,996 theses from 78 institutions of higher learning. Approximately 500 courses of study from State, city, and county boards of education were received and are available for reference in the Library. During the year, 7,209 volumes were classified by the Library, and 25,000 cards were prepared and filed in the card catalog. More efficient methods put into effect helped to expedite the cataloging of acquisitions. The medium of School Life was used to announce new accessions, chiefly theses, new books and pamphlets, and courses of study.

Administrative Management and Services

Major Emphasis

Among many activities of this section during the year, all dealing with budget preparation and planning, fiscal services, personnel, and mails and files, several of the more important ones may be mentioned. These touch on plans made and steps taken to recruit professional staff members for the Office of Education, further development of plans and projects for programing work of the respective divisions and services of the Office and reporting on such work periodically, and efforts to bring the entire personnel of the Office of Education together in the Federal Security Building, headquarters of the Federal Security Agency.

Cooperating with Commission

Early in the year an Expert Examining Committee was established within the Office of Education to aid the Office personnel section in developing qualification standards and in locating and employing top-flight specialists for service to American education. Cooperating with the Civil Service Commission, this committee initially prepared an announcement for educational specialists in grades P–6 through P–8 which the Commission issued on January 14, 1947. Nation-wide response to this circular by qualified educators enabled the Civil Service Commission to establish registers from which 20 staff positions have been filled on a permanent basis, and selections made for the filling of additional positions. These new appointments are in line with the plan "to improve the services of the United States Office of Education" through a strengthened professional staff.

Also, in accordance with the organizational plan established for the Office, this section, during 1947, effected the classification of all new positions previously approved under the Office budget. Restatement of duties for many formerly established positions was made to bring such positions in line with the organizational plan.

Programing

New-type programing of Office of Education work which began last fiscal year was further developed during this fiscal year. Procedures were revised and refined to insure more comprehensive description of projects planned, the objectives, significance of problems involved, and plan of work. This kind of reporting at regular intervals will provide the Commissioner of Education with necessary data to coordinate work projects within the Office and to improve Office administration generally. Staff conferences held during the year helped to establish Office-wide goals, and clarified the purpose of adequate and uniform programing and periodic reporting.

Moving

Negotiations were begun during the year to consolidate all Office of Education offices in the Federal Security Building. For many years, and especially during the war, these offices have had several different locations. About half of the Office staff already has been moved to the Federal Security Building. Bringing all Office of Education personnel together in one building, which is also the headquarters of the Federal Security Agency, is expected to improve working relationships and Office efficiency.

Other Activities

Student war loan activities were transferred to this section during the past fiscal year. Budgets and reports were developed for Surplus Property Utilization, the Veterans' Educational Facilities Program, and the International Exchange of Persons Program. Liquidation of war activities involved the disposition of surplus property and equipment and a complete revision of property control records. The staff participated in the development of procedures to effect better systems of handling correspondence and mail distribution, and for destruction or other disposition of Office records. Advisory service to the Commissioner and to all Division directors on administrative problems was rendered as usual throughout the year.

INTERNATIONAL EDUCATIONAL RELATIONS

THE EVER-GROWING INTEREST in international affairs has been reflected in the educational world. The Division of International Educational Relations during the 1947 fiscal year has been called upon for many types of assistance. It has been in a position to cooperate with governmental agencies, educational institutions, educators, students, and others who are interested in education from every State of the Union and our outlying parts. The Division has also worked with the governments, educational institutions and associations, educators, and students of many other countries.

Evaluation of Academic Credentials

One of the major problems which confronted all of United States education at the college and university level was the heavy influx of foreign students. The growing number of students from other countries who wish to study in this country is indicated by the increase in requests made to the Division for an estimate of the foreign student's academic background and attainment so that appropriate placement could be made. Approximately 300 educational institutions in the United States requested the Division to evaluate more than 2,600 foreign academic transcripts, which represented an increase of more than 800 over the previous year. The evaluation of these records involved translations into English from 26 different languages.

Exchange of Students and Teachers

Another large and significant portion of the work of the Division was the exchange programs. More than 225 foreign academic personnel were the direct responsibility of the Division; and these professors, teachers, and students were assigned to colleges, universities, elementary and secondary schools in nearly every State in the country. The visiting educators and students participated in the following programs: Buenos Aires Convention for the Promotion of Inter-American Cultural Relations, Teacher Trainees from the other American Republics, Travel and Maintenance Grants to United States students for study in Latin America, Visiting Teachers of English from the other American Republics, Spanish Language Seminar for United States Teachers of Spanish, Interchange of Teachers between the United Kingdom and the United States, and the Interchange of Teachers between Canada and the United States.

Exchanges With American Republics

Under the provisions of the Buenos Aires Convention, 30 graduate students from 14 American Republics came to the United States. The Division assisted in the selection of these students; assisted them in finding suitable housing accommodations; arranged for their orientation, placement, and registration in 26 colleges and universities. Foreign advisers in the universities were informed of the special needs of each student. During the year the Division arranged for the payment of each student's tuition and monthly maintenance allowance; followed his progress through reports from the supervising professor; provided continuous counsel and guidance for him; and, in general, aided him in making the necessary social adjustment to a new environment.

In cooperation with the Department of State, the Division processed the applications and helped select the 13 United States graduate students and 5 alternates who received travel and maintenance grants for study and research in the other American Republics. These students came from eight different States and represented the fields of history, music, art, Spanish-American literature, Spanish, political science, economics, geography, and international relations. The grants are for a period of 6 months to a year and, in some cases, may be renewed.

In August 1944, a program in teacher education was established in cooperation with the Interdepartmental Committee of the Department of State. This program granted 6-month fellowships to a small number of teachers from the other American Republics for specialized training in the United States. Phases of education in which the need was critical were given priority. Under that program during the 1947 fiscal year, six teachers came to this country from the following republics: Cuba, 1; Panama, 1; Paraguay, 1; Colombia, 2; Peru, 1. The Division with the cooperation of specialists in the other divisions of the Office coordinated the itineraries and programs for these teachers. Reports of their activities have been received for the purpose of evaluation and future publication.

Another program in teacher education brought 23 teachers of English from 12 of the other American Republics to the United States for a 3-month scholarship for intensive training in methods of teaching English as a second language. The Division arranged with the University of Pennsylvania and Indiana University to receive these teachers in two groups for work in a 6-week course in linguistics, phonetics, and various methods of teaching the language. After 6 weeks at the universities the teachers were sent to high schools and colleges in other sections of the country for a month's stay. There they assisted our teachers of Spanish, Portuguese, or French, and observed classes in English and other subjects of interest to them. The teachers visited New York and Washington, D. C., before their return to their homes. The enthusiastic reports from the universities and the schools which the teachers later visited indicate the value of the program. One of the teachers from Panama spoke 52 times in Philadelphia to a total of approximately 10,000 students.

The counterpart of the above program is that of the Spanish Language Seminar for United States teachers of Spanish. This program, in its fourth year, is conducted in cooperation with the National University of Mexico. The aim is to reduce the language barrier and improve the pronunciation and fluency of our teachers of Spanish. Eighty-five teachers representing 30 States and the District of Columbia attended the Seminar in Mexico City from July 1 to August 15.

Interchange of Teachers with Great Britain

This completes the first year of the interchange of teachers between the United States and Great Britain. Thirty States participated in the program, and 74 British teachers were exchanged on both the elementary and secondary levels with 74 teachers from the United States. For the coming year, plans were completed for the exchange of approximately 125 teachers from the United States with an equal number from Great Britain.

The Division also provided assistance to United States teachers in securing teaching positions in other areas of the world. From a roster of available personnel which it maintains, panels of qualified teachers and professors were submitted upon request to the Inter-American Schools Services of the American Council on Education, the Department of State, the War Department, and other public and private agencies for possible assignments in foreign countries.

Preparation and Exchange of Information on Education

During the year the Division received hundreds of requests for information on education in other countries of the world, and from abroad came inquiries for information about education in the United States. In both instances, these requests came from Government agencies, educational institutions, and individuals, and covered a wide range of information. From the United States came requests for general information on education in other countries, as well as on specific topics such as the curriculum in certain fields of study in various foreign universities, physical education, organization of literacy campaigns, teacher training, and opportunities for GI study abroad.

Preparation and Exchange of Materials for Use in Schools

To meet the needs for teaching aids and materials in the schools of the United States at all levels, the Division continued its loan-packet service, which consists of furnishing 20 different packets on various Inter-American topics. Packets were sent to approximately 2,000 schools and colleges on a 3-week loan arrangement and by giving the borrower an opportunity to examine the material, facilitated the selection of material suitable to his particular needs.

The Materials Unit also has available for loan 1,500 kodachrome slides on life in the other American Republics, together with teachers' notes giving information about each slide. Through the loan-packets and the slides, the Division has received an average of 700 requests each month for additional information and material. In addition to the loan packets more than 3,000 packets of free materials, such as maps, charts, pamphlets, and brochures were sent to teachers throughout the country. There was also a noticeable increase in the number of persons active in community affairs who made use of this service during the year. Several business firms which were carrying out some type of activity on international affairs also called on the Division for program suggestions and background information.

Another phase of the work in the exchange of materials was the Pen Pals—the correspondence initiated between young people of foreign countries and those of the United States. The bulk of foreign letters received during the year was from Germany, although there also were letters from Austria, England, France, Latin America, Australia, and other regions. Approximately 30,000 letters were received from students of all ages, from primary students to university graduates, as well as a small number from business and professional people. The Division made direct arrangements through which 21,722 of these letters from abroad were answered by school children and university students.

Education Studies and Publications

The Division of International Educational Relations has continued the preparation of basic studies on education in Central and South American countries begun in 1943 under the sponsorship of the Interdepartmental Committee on Cultural and Scientific Cooperation of the Department of State. During the year reports on education in Colombia, Costa Rica, and Peru were published; reports on five countries—Dominican Republic, Ecuador, El Salvador, Guatemala, and Nicaragua—were sent to press; the manuscripts of three others—Haiti, Panama, and Venezuela—were completed; and the field study of Education in Bolivia has been completed and the report is being prepared.

Members of the Division staff prepared 27 articles for publication on various phases of international education. These appeared in SCHOOL LIFE, HIGHER EDUCATION, *The NEA Journal*, *Association of Secondary School Principals' Bulletin*, *The Elementary School Journal*, *Phi Delta Kappan*. A number of these articles were republished in other publications, such as the Department of State Official Record, and in the Spanish and Portuguese Bulletins of the Pan American Union.

Staff members were repeatedly called upon to fill speaking engagements and act as discussion leaders before educational conferences, civic organizations, elementary and secondary schools, colleges and universities, church groups, libraries, and parent-teacher associations. More than 50 such engagements were filled.

Foreign Visitors

The gradual resumption of international travel brought more than 500 visitors from foreign countries to the Division during the year. These included members of Ministries of Education, school officials, members of diplomatic missions and government agencies, and teachers and students. The staff of the Division helped them obtain information about our schools and school systems; made appointments for them with other agencies of the Government and private organizations; assisted them in making itineraries to include specific types of institutions and study centers; directed them to sources of material and equipment for schools; and helped them with personal problems.

AUXILIARY SERVICES

Service to Libraries Section

THE ADEQUACY OF LIBRARIES is frequently taken for granted, and at other times the significance of libraries for good citizenship and intelligent thinking is overlooked. Partly as a result of these attitudes, library services and facilities still fall far short of fulfilling their functions in the educational program of the Nation. It is nearly 100 years since Edward Everett hailed the founding of the first large public library in Boston as a landmark in completing our public educational system. Nevertheless, 23,000,000 persons are being served today by public libraries with an annual operating income of only 25 cents per capita, and another 35,000,000 persons have no public library service. Furthermore, it is probably a conservative estimate to state that 60 percent of the public schools have either inadequate library facilities or none at all. Surveys show likewise that many institutions of higher education do not have adequate library facilities to support their instructional programs.

Two major problems emerge: One, the improvement of existing libraries so that they will be able to perform their proper role in the educational program of the States; and the other, the extension of library services to regions and communities now without these essential educational facilities.

Improvement and extension of library facilities, whether they be school, college, or public libraries, involves among other things: (1) Accurate data on the current status of libraries; (2) reasonable standards of service; (3) increased competence of library workers; (4) successful recruiting of new personnel; (5) efficient library quarters and equipment; (6) adequate financial support; and (7) an awareness on the part of policy-making bodies, administrators, and citizens, of the value of libraries.

During the fiscal year 1947, the Service to Libraries Section directed its attention in varying degrees to the preceding major problems. In the matter of making available basic data on libraries, the Section tabulated and interpreted statistics from some 6,000 public library systems covering the fiscal year 1945. Preliminary circulars issued for the various size-groups of libraries were used by governing bodies and administrators of libraries and by national planning committees. Certain summary data were called for by the Senate Subcommittee on Education of the Committee on Labor and Public Welfare at the hearings on the Public Library Demonstration bill (S. 48). With a view to assuring the economical collection of the most urgently needed data for other types of libraries, staff members maintained contacts with school library supervisors, college librarians, professional associations, and State library agencies.

The Section rendered assistance in the establishment of library standards. The specialist for school and children's library work served as consultant to the South Carolina Education Association in its program of setting up school library supervision in the State Department of Education, a program which has already become effective. This same specialist also aided the committee of the American Library Association's Young People's Reading Round Table which was concerned with formulating standards for youth service in public libraries. In addition, special summaries of data were supplied to American Library Association's Committee on Postwar Planning for its consideration of standards. A staff member participated on a committee of the Association of College and Reference Libraries which is revising the standards for the classification and pay plans of the libraries of the institutions of higher education.

The Service to Libraries Section contributed directly to the in-service training of library personnel. At the meeting of the Southeastern Library Association in October 1946 and at the Library Leadership Conference held at Tallahassee, Fla., in March 1947, the specialist for school and children's library work participated in the planning and conduct of programs to develop procedures for the in-service training of personnel and to orient persons responsible for developing library programs. This service resulted in a publication and in a series of workshops conducted in the Southeastern States during the summer of 1947.

Perhaps of equal importance with in-service training of library personnel is the problem of recruiting for the profession. Two specific activities should be noted in this connection. Consultative service was rendered on the problem of recruitment at the Library Leadership Conference in Florida, and assistance was given also to the Activities Committee of the Special Libraries Association, Washington Chapter, in its formulation of a program to recruit potential special librarians.

In the area of advice on efficient library quarters and equipment, the specialist for college libraries advised a representative of the American Institute of Architects in preparing *Building Type Reference Guide* for the July 1947 Bulletin of the Institute. This guide sets forth fundamental principles in planning library buildings. The specialist for school libraries likewise rendered assistance to the National Council on Schoolhouse Construction on the school library section of its *Guide for Planning School Plants.*

In the matter of securing adequate financial support for libraries, the activity of the section took the form of compiling and publishing special tables which showed the present woeful lack of operating funds for public library services. It also supplied to library administrators comparative circulation, personnel, and financial data for use in preparing budget requests.

With the object of making policy-forming bodies, administrators, and others aware of the essentiality of adequate library service, members of the section prepared various articles and columns. In each issue of SCHOOL LIFE, the section was responsible for the column, "Library Services," which reported the significant progress and activities of libraries. The specialist for school libraries prepared the library chapter, Children's Literature Adapted to World Good Will in *Strengthening World Organization Through Elementary Education*, a publication resulting from a workshop held at Syracuse University for elementary school principals. Another staff member contributed an article, Development of Adequate Library Resources in Rural Communities. In order that the section might be fully aware of the needs of the field, the Commissioner invited a group of laymen and librarians to Washington in June 1947 to consider problems of library development and to make recommendations for long-term planning.

Since library problems in this country were so numerous, a relatively small share of the section's time was given to those abroad. The section did help the Department of State on library school curricula for foreign countries, on foreign exchange students, and other matters. Several staff members participated in the Assembly of the Librarians of the Americas at the Library of Congress, and one specialist assisted in the preparation of the UNESCO book exhibit sent to Paris.

Educational Uses of Radio

Services to the General Field of Education By Radio

The Radio Section serves as a "clearing house" for news of developments involving the production, use, and evaluation of educationally useful radio broadcasts and program recordings, and for information concerning important events and trends in the field of education by radio. Such information is distributed through the media of the Federal Radio Education Committee's *FREC Service Bulletin*, a variety of FREC informational booklets, the regular publications of the United States Office of Education, personal contacts with leaders in this field, and through day-by-day correspondence.

Members of the Radio Section's professional staff work closely with the several professional organizations in the field of education by radio, either as members, or in the capacity of consultants, and serve as speakers at various local, regional, and national meetings of professional and service organizations concerned with the use of radio in education.

Participation, by the Radio Section, in the basic program of the Federal Radio Education Committee is directed toward keeping commercial broadcasters and school people each continuously informed of the needs, interests, and purposes of the other. For the same reasons, close liaison relationships are maintained with the Federal Communications Commission and other Federal agencies and departments concerned with the production or use of educational broadcasts; with trade associations of broadcasters and radio-equipment manufacturers; and with the major educational, civic, cultural, and religious groups and organizations interested in education by radio.

Finally, the Radio Section assists various educational institutions in the planning and development of in-service training programs to prepare teachers to use radio effectively, and, each year, it publishes a *Directory of College Courses in Radio* for distribution, on request, as a guide to school people interested in specializing in this field.

Services Involving the Use of Educational Radio Programs and Recordings

Each month of the school year, the Radio Section prepares, for publication in the *Scholastic Teacher* magazine, a classified list of network radio programs selected by a special FREC Program-Evaluation Committee as suitable for classroom and recommended home listening by students. Informational materials are prepared, from time to time, for distribution in response to requests from teachers and supervisors concerning the use of radio and educational program recordings. In addition, recommendations as to teaching methods to be used in special situations are provided to individual school people by correspondence.

Services Involving Educational-Program Availabilities and Production

Best known of the Radio Section's services in this category include operation of its FREC Educational Program Script and Transcription Exchange, publication of periodically revised catalogs listing programs available in script and transcription form from the Exchange, and announcing, in the *FREC Service Bulletin*, scripts and transcriptions available to schools from other sources. In addition, the Radio Section prepares various informational aids to educational program production, for distribution, on request, to local schools and college program-producing groups; and, from time to time, members of its professional staff are asked to consult with educational program directors of networks and commercial radio stations concerning the kinds of programs likely to be most immediately helpful to schools.

TABLE 4.—*Services provided by the Educational Uses of Radio Section, fiscal year 1946–47*

Materials or services provided on request	1946–47	1945–46	Grand total to date
1	2	3	4
SUPPLEMENTAL (INFORMATIONAL) MATERIALS:			
Radio program production aids	1,484	1,175	2,659
Radio bibliography	1,945	3,096	12,606
Directory of college courses in radio	1,016	1,850	6,975
Technical publications (loan circulation)	139	134	6,557
FM for Education (Misc. No. 7)	300	5,027	8,302
Standards for college courses in radio	500	2,000	2,500
Information bulletins on State-wide coordination of educational FM station planning	2,880	1,640	5,079
Information bulletins on educational station planning	500	351	851
Sound systems (Joint Committee's First Report):			
Mailings in response to requests	4,350		4,350
General mailing by FSA	24,000		24,000
Teaching with radio programs and transcriptions	1,750		1,750
All other free publications	6,706		6,706
Total	45,570	15,273	82,335
CATALOGS:			
Fifth edition script catalog	2,926		2,926
Transcription catalog	3,203		3,203
Previous catalog editions		2,551	38,238
Total	6,129	2,551	44,367
MISCELLANEOUS:			
Transcription circulation (program loans)	3,482	2,481	16,542
Script circulation (program loans)	9,265	6,329	361,651
FREC Service Bulletin (total copies)	50,000	49,166	439,666
FREC program-listing service (*Scholastic Teacher*)	50,000	9,300	69,198
Requests filled for technical advice, etc	525	502	2,416
States given requested FM system planning assistance	12	10	38
Individual requests for one or more services	21,001	16,438	124,240
Separate pieces of outgoing mail (exclusive of sound system booklets mailed by FSA)	47,553	37,815	

Services Involving Administrative Planning for the Use of Radio

Each year, the Radio Section receives a great many requests from school administrators, supervisors, and local directors of education by radio for advice and recommendations involving administrative problems ranging all the way from that of fitting the use of radio broadcasts and recordings into the local school curriculum, to that of planning the development of a local educational FM broadcast station and deciding what its services should be.

Now, due to the steadily mounting interest in developing school-owned FM broadcast stations, the Radio Section receives an increasingly heavy demand for consultation service to State departments of education and to State-wide educational FM-station planning-coordination committees.

Services Involving Design, Selection, and Use of School Audio Facilities

Requests for assistance and advice related to the selection of audio equipment items needed for specialized educational applications are increasing in volume each year. Some of these can be handled through routine correspondence. Others require suggestions of special arrangements and modifications to meet conditions of use peculiar to individual schools, or even the re-design of standard equipment items. Manufacturers, too, are asking increasingly for assistance involving such things as suggestions for the development of new audio-equipment items for schools, and the improvement of existing items. In addition, the work of the *USOE–RMA Joint Committee on Standards for School Audio Equipment*, now in its third year, is continuing at an accelerating pace, with a second major report, *Recorders and Recorded Program Players for Schools*, now being printed for distribution in early October of 1947, and two new studies in progress.

Visual Education Section

The fiscal year 1947 marks the first full year of operation of the Visual Education Section on a permanent peacetime basis. The establishment of this section is in keeping with the early and continuing interest of the Office of Education in the newer tools of instruction. More than 15 years ago, the Office of Education pioneered in educational radio; later a specialist in Radio and Visual Education was added to the staff and a national survey was undertaken in cooperation with the American Council on Education. As a result of this survey, several publications were issued on the location of visual aids equipment, the utilization practices of schools, and the sources of teacher education in the field of visual education. For a time also the United States Film Service came under the administration of the Office of Education. As a part of the war training program, the Office of Education established the Division of Visual Aids for War Training, the primary responsibility of which was the production of visual aids to expedite the training of war production workers.

The establishment of the present Visual Education Section as the immediate successor to the Division of Visual Aids for War Training is, therefore, a logical manifestation of the interest the Office of Education has long had in the application of visual aids to education.

Visual aids in general may be defined as those instructional tools that combine instructional content and method and which present their content primarily through pictorial representations which may or may not use spoken or printed words. These include the sound and silent motion pictures, the sound and silent filmstrip, slides, charts, posters, and diagrams. Some authorities in the field would also include in this definition such things as excursions, school journeys, mockups, working models, and the like.

Visual aids taken as a whole offer a new medium of communication comparable in scope and content with the more traditional verbal language communication. This new medium of communication enables the educator to teach effectively content that heretofore was either impossible or difficult to teach, and it enables the student to receive communication with a minimum of preparation.

The application of these aids to classroom instruction is generally called "visual education." Visual education includes all the problems involved in applying pictorial representation of content to instruction and more specifically includes the production, distribution, evaluation, administration, and utilization of motion pictures, filmstrips, slides, charts, posters, still photographs, and the like on all grade levels and in all subject-matter areas.

Visual aids when considered in relation to education pose many problems. These problems derive from (1) the newness and general lack of understanding of pictorial forms of communication; (2) the unique requirements of visual education in terms of buildings, equipment, personnel; (3) the complexity of the application of visual education to all the phases of educational work; and (4) the nature of the medium itself.

The long-range objectives of the Visual Education Section, in keeping with the functions and policies of the Office of Education are:

1. To promote the development of a body of research, statistics, and information that will indicate sound and effective lines of development.
2. To promote the study of the most effective principles of utilization and assist in the establishment of training courses in these principles for teachers and instructors.
3. To promote establishment of principles of production that make for more effective and efficient materials of visual education.
4. To seek the establishment of sound and effective procedures for the selection and training of the personnel who will serve as leaders in the field.
5. To promote the study and the formulation of principles regarding the most effective role of distribution of visual materials.
6. To provide the basic clearing house for educational institutions to secure information relative to all phases of visual education.
7. To provide the consultation, assistance, and guidance necessary to education to secure the optimum benefits through the use of visual aids.

These are long-range objectives. The immediate work of the section is dictated by the requests for information, guidance, and assistance that come from educational institutions and other organizations directly concerned. During the fiscal year 1947, the following represent the major accomplishments of the Visual Education Section:

Distribution of Films

The Visual Education Section continued the distribution of the visual aids produced by the Division of Visual Aids for War Training during the war period. Most of these films are directly applicable to the peacetime problems of vocational training and the demand for them continues without lessening. The appropriation act which authorized the production of these visual aids provided that the prints should be sold at a price sufficient to return the cost of production. The following table shows the sales and the returns to the Government during the fiscal year 1946–47:

TABLE 5.—*Sales of OE films for the fiscal year 1946–47*

Date	Number of—		Money received
	Motion pictures	Filmstrips	
1	2	3	4
1946			
July	337	396	$1,799.15
August	1,119	703	6,680.30
September	615	469	3,700.40
October	540	910	3,423.50
November	673	748	3,795.05
December	161	107	963.20
1947			
January	1,113	1,112	6,788.95
February	823	1,646	5,308.35
March	548	820	3,438.00
April	427	879	2,762.90
May	635	981	3,994.60
June	753	751	4,592.60
Total	7,744	9,522	47,247.00

The total sales to schools, industrial organizations, and foreign governments of the production program are given in the following table:

TABLE 6.—*A summary of the sales during previous years*

Fiscal year	Number of prints sold		Sums returned to the Treasury
	Motion pictures	Filmstrips	
1	2	3	4
1941–42–43	28,112	0	0
1944	3,038	1,250	$12,951.75
1945	7,542	5,907	52,380.15
1946	6,990	7,662	42,420.50
1947	7,744	9,522	47,247.00
Total	53,426	24,341	154,999.40

All of these films are distributed through a commercial distributor awarded a distribution contract through Procurement Division of the Treasury Department on the basis of providing the greatest service to the schools at the lowest cost to the Government and to the schools.

The Visual Education Section has made available to the schools of this country, in addition to the visual aids produced by the Office of Education, approximately 713 sound motion pictures and 544 filmstrips produced by other governmental agencies for their own immediate use but which are, nevertheless, of interest to schools. Approximately 5,000 such prints were purchased by the schools of the country during the past year.

The distribution of films requires the preparation and publication of catalogs, and during the fiscal year 1947 approximately 75,000 catalogs were mailed to schools and to groups interested in training. In addition there were approximately 110,000 mailings of specialized lists of titles specially selected for their application to specific courses of study.

The demand from foreign governments and organizations for films is constantly increasing, and the task of securing the necessary certification for import duty-free entry abroad has grown in size. During the year there were shipments of films to some 20 foreign nations.

Inquiries

During the year the staff handled a total of nearly 5,000 inquiries for information on the location of films, guidance in study in the field, location of institutions giving courses, guidance in developing teacher-training courses, suggestions on problems of school administration, and the like.

Advisory and Consultative Service

During the past year, representatives of the Visual Education Section served in an advisory and consultative capacity at audio-visual conferences, teachers' meetings, and study groups sponsored by educational institutions and professional organizations throughout the Nation. In addition, the chief of the section participated, as consultant and adviser, in several international conferences dealing with (1) the international exchange of educational film and audio-visual material on a duty-free basis, and (2) the role of educational visual materials in the development of international understanding.

Summary

The year 1947 was a year rich in development on both the national and international level, with a new awareness on the part of schools of the potentialities of audio-visual aids in education, and with a new understanding of the problems of the field of visual education.

SCHOOL ADMINISTRATION

OVER 31,000 MEN AND WOMEN are engaged in the administration of public-school education in this country. These administrators direct annually the expenditure of more than 3½ billion dollars, the management of more than 8 billion dollars worth of school property, the employment of a million teachers and tens of thousands of other employees. Even more important, they are vitally concerned with the education of over 25 million boys and girls in an ever-expanding educational program that reaches from the nursery school through college to adult education. The administration of perhaps no other enterprise in America is so important to the progress and welfare of the citizens of this country.

The problems of school administration have so multiplied in recent years as to tax the ingenuity of our most competent administrators. Since the war, educational programs required adjustment because of returning veterans and youthful war workers. Other problems faced the administrator: The development of nursery school programs; the broadening of adult education; the redirection of vocational education; and the reorganization of curricula to provide an education for youth suitable to the modern world which is rapidly changing as a result of new developments in such areas as air transportation, electronics, radio, and atomic energy. Every phase of the changing educational program presents a challenge to the administrator which must be met. No program of education can advance far beyond the vision or the resources of technical skill and knowledge which the responsible administrator has at his command.

In an effort to improve the administration of education in the Nation, the Division of School Administration has made available, within its staff limitations, its resources of technical skill and knowledge to assist the States and in turn the localities with their administrative problems. The 1946–47 fiscal year was a busy one—44 State legislatures were in session. Thousands of administration problems required solutions. A multitude of new educational laws were passed by the several State legislatures. The resources in the Division of School Administration which provided technical consultative services on school legislation, pupil transportation, business management, finance, State school organization and administration, education of professional administrators, and school housing were taxed to the utmost, and the Division was able to meet only a small fraction of the requests from the field for greatly needed services.

Cooperative Working Relations with the Chief State School Officers

The United States Office of Education for many years has maintained an official and direct relationship with each chief State school officer and with each State department of education. The cooperative spirit which has developed during this time provides mutual advantages and real benefits to education. Such a relationship enables the Office of Education to exercise national leadership in the coordination of the study and activities of State departments of education on problems of common concern. This relationship is important because of the unique position of the chief State school officer and the State department of education in our democratic system of education.

The chief State school officer is the head of the public schools of the State, and with his staff is responsible for long-range planning and professional leadership on matters pertaining to education within the State. No other official agency is in the position to wield such influence for the improvement and advancement of education. The growth of State educational leadership has been one of the most significant developments in the history of American education. Its continuous improvement constitutes one of the major objectives of the United States Office of Education.

In addition to the regular relationships with the chief State school officers and State departments of education, the Division of School Administration has close working relationships with the National Council of Chief State School Officers, its executive committee and officers, and the Study Commission of the Council.

All chief State school officers are members of the National Council of Chief State School Officers. Through this organization it is possible to bring to bear the coordinated and unified efforts of those individuals officially responsible for education in the several States. The executive committee of the council meets several times each year and the council as a whole convenes once a year. The Director of the Division of School Administration serves as the liaison officer between the National Council and the Office of Education. During the year he met frequently with the officers and the executive committee and served as their consultant on plans and programs for the improvement of State systems of education and other problems of common interest.

More intensive study of current educational problems of Nation-wide interest is carried on through the Study Commission of the National Council. This Commission is composed of a State department of education staff member from each State, who has been designated by his chief State school officer. Members of the Division staff act as consultants to the committees of the Study Commission as they work on individual studies. During 1947 the Study Commission and the Division of School Administration planned jointly two major projects: (1) The organization, functions, and services of State departments of education—a 3-year study; and (2) the reorganization of the entire record and reporting systems of schools involving the coordination of the local, State, and Federal systems—a 5-year study.

The program of research and study undertaken by the Commission during the year included the development of general policies and principles for (*a*) vocational education, (*b*) teacher education, (*c*) veterans' education, (*d*) guidance, and (*e*) education of exceptional children. In the prosecution of these studies, staff members of various divisions of the Office of Education provided consultative service to the committees of the Study Commission. The completed reports were approved by the National Council of Chief State School Officers at its annual conference and were published in the April and May 1947 issues of SCHOOL LIFE.

Education of Children Living on Federal Reservations

For many years the problem of the education of children living on Federal reservations and other Federally owned property has been left unanswered, with the result that thousands of school-age children were left to makeshift and inadequate educational arrangements. The number of such children increased rapidly during the war period because of the many acquisitions of land throughout the Nation by the Federal Government. Eleven Federal agencies with such properties under their jurisdiction were vitally concerned with this situation. At the request of a number of these agencies, the Office of Education held a series of 9 work conferences over a period of 2½ months for the purpose of formulating a satisfactory plan for the education of such children. Proposals for the solution of this problem growing out of the conference studies were incorporated by Members of Congress in bills introduced in the first session of the 80th Congress.

A comprehensive and detailed study of the entire problem of education of children on Federal reservations prepared by members of the staff of the Division of School Administration is contained in the document entitled *Emergency Educational Aid for Government Reservations. Hearings Before the Committee on Education and Labor, House of Representatives, Eightieth Congress, First Session, May 1947.*

State Department of Education Surveys

At the request of the Chief State School Officer of Rhode Island, the staff of the Division (1) made an appraisal of the existing organization and functions of the State Department of Education of Rhode Island;

and (2) outlined a program for the development and improvement of the services of the Department with a view to meeting long-term postwar educational needs of the State. The report, entitled "*Improving Education in Rhode Island*," was made to the Chief State School Officer in pursuance of the established policy of providing consultative service to the States.

A request for a study of the organization and services of the State Department of Education was received from the Chief State School Officer of Missouri. This study was initiated during the latter part of June 1947.

School Housing Services

It will require an estimated 6 to 8 billion dollars to provide urgently needed school plant facilities for the public elementary and secondary schools of this Nation. Because of manpower and material shortages during the war it was impossible to erect many new buildings and to properly maintain old ones. In consequence there is now a widespread demand for new facilities in areas of population growth, and for replacement of old and obsolete structures. It seems probable that in the years immediately ahead new construction demands will exceed those of any other period in our history. Probably in no other areas in school expenditures will there be such great need for adequate professional, technical, administrative, and consultative services.

Among the school housing services provided during the year were the following:

1. Assistance in the planning and preparation of a *Guide for Planning School Plants*, a publication of the National Council of Schoolhouse Construction.
2. Consultative services and assistance for 16 regional school housing conferences at which more than 5,100 officials of State and local school systems and colleges and universities participated. These conferences were devoted to school plant planning programs, surveys, plant insurance, custodial services, standards, heating and ventilating, lighting, and other school housing problems significant to the particular region.
3. Consultative services and assistance in the preparation of a *Guide for Planning Facilities for Athletics, Recreation, Physical and Health Education.*
4. Participation in plant planning conferences for urban colleges and universities.
5. Development of school plant planning programs with public-school business officials, the National Council of Schoolhouse Construction, and the American Association of School Administrators.
6. Completion of a study and the preparation of three articles upon *School Plant Safety.*
7. Completion of a study and the preparation of a bulletin on *Fire Exit Drills.*

8. Preparation of a bibliography on school plants.
9. Completion of a study on school maintenance.
10. Consultative services to State and local school officials on plant planning and on the types of services and materials available. The School Housing Section maintains close liaison with various specialists and associations such as: American Institute of Architects; National Fire Protection Association; National Board of Fire Underwriters; illuminating, heating and ventilating, and acoustical engineers; sanitary and plumbing specialists; and material and equipment supply dealers; and advises them of the types of materials and services needed for school plants.

At the request of the War Department, a member of the staff spent 10 weeks in Germany and Austria making a survey of the school-plant situation in these two countries. The report of this survey was used as one of the factors in determining educational programs in these occupied countries.

The program of services provided by the School Housing Section is geared to assist States in the development of State-wide school-plant programs; in the improvement in the selection of school sites; in the development of State and local standards for educational buildings and equipment and sound methods of financing new construction; and in the development of State and local maintenance, rehabilitation, safety, and operating programs.

School Finance Services

During recent years State school systems have been faced with great complexities not previously met in financing public schools. In the days when school programs were limited to short terms and a few subjects, and were designed for only a small number of children, problems of State school finance were relatively simple. Since that time, however, schools have been progressively expanded to meet the needs of all children and youth. The services they render are now a major function of government in every State, and funds for education constitute a major part of the State's revenues. In the wake of the war the problems of State school finance have been magnified and have become more difficult because of such complicating factors as the decrease in the value of the dollar; the larger share of the tax dollar which is taken by the Federal Government to pay for the costs of the war; extended and broader educational programs that must be carried on by the States; and increased enrollments. The problems of school finance are thus major and acute in every State in the Nation. The need for greater participation by the State in financing local programs must be recognized.

An awareness of this need resulted in the study by the Specialist in School Finance entitled, "*The Essential Features of a State Plan for*

Financing Schools." In addition to preparing this bulletin, progress was made in the project involving the description of the systems of school finance prevailing in the 48 States. Studies of 6 individual States were completed during the year. A bibliography on *State School Finance* which is an important tool for those concerned with the reorganization of State school finance programs was undertaken and partially completed.

The urgent need to modify and to reorganize their fiscal systems for education brought many requests to the Division of Administration for consultative service from individual States. As a consequence much time of the Specialist in School Finance was devoted to this important service.

Pupil Transportation Services

The safe and efficient transportation of 5 million school children involves the expenditure of more than 130 million dollars annually and constitutes a problem of the top rank in school administration. Moreover, in the years ahead all evidence points to a sharp increase in the number of pupils to be transported and in the amount of funds necessary to provide for this service.

Because of the relatively recent growth of pupil transportation services there are many parts of the Nation in which school administrators have not been able to plan adequately for them. It is vitally important that planning be done to increase the safety of the pupils being transported and to decrease transportation costs.

The Specialist in Pupil Transportation had as his objective the promotion, improvement, and development of sound State programs for the organization and supervision of pupil transportation; and during the year he has sought to collect and disseminate information and to provide consultative service which would assist States in the attainment of these ends.

During the fiscal year 1946–47 some of the major activities and projects in this field included:

1. Completion of a study and the preparation of a bulletin on *School Bus Maintenance.*
2. Completion of the surveys of pupil transportation in two counties in Florida, for the purpose of developing guides in survey techniques for use of State departments of education.
3. Completion and publication of the statistical study of pupil transportation in wartime from the records of the Office of Defense Transportation.
4. Consultative services for conferences of 11 Midwestern States studying special problems in the field of transportation.
5. Initiation and the planning of a project for the development of adequate records and reports on pupil transportation.

6. Improvement of materials in the Office of Education loan packets on pupil transportation. These materials which contain the information on best practices in the several States were made available to 46 State officials concerned with the administration of pupil transportation.
7. Participation in 2 State department of education work shops on pupil transportation.
8. Cooperation with the Research Division of the National Education Association in the preparation for publication of a bulletin on *Insurance in Pupil Transportation.*

School Legislation Services

The Specialist in School Legislation provided consultative service on many phases of school legislation to Federal, State, and local school officials, and to lay organizations and interested groups. He participated in many inter-Departmental conferences where legislative matters affecting education were under consideration. One such series of conferences was called by a committee of the Department of Justice to consider the development of model State legislation to facilitate the administration of the Federal lunch program in schools. The specialist also attended the annual meeting of the Legislative Committee of the Council of State Governments in Chicago for this same purpose. Another series of conferences was held to consider the problems of adequate educational facilities for children on Federal reservations and to formulate appropriate policies with respect to the education of such children.

The specialist served in an advisory capacity to State school officials in the planning of a survey of State legislation affecting the education of handicapped children. This conference was called by the Division of Elementary Education.

A research program in school legislation and its interpretation resulted in the gathering of information on the following subjects:

1. Enactments of the Seventy-ninth Congress relating to education.
2. High lights of 1946 State enactments relating to education.
3. Educational measures before the Eightieth Congress.
4. Issues in education as passed upon by the United States Supreme Court.

Teacher Salary Schedule Services

The exodus of teachers from public schools since 1940 has been without parallel in American history. Between the years 1940–41 and 1944–45, 350,000 teachers, in addition to the normal turn-over of 10 percent, left the public schools. This situation became a national hazard.

An underlying cause of this state of affairs involves teacher salaries and salary schedules. The need for the development of guides to assist

State and local school officials in making and implementing salary schedules became apparent. In order to be of assistance in this national problem, the Division of School Administration took steps to gather information, to develop over-all principles, and to provide consultative services which would be helpful to State and local authorities in solving the problem. As a consequence, a national work conference was held for the purpose of defining the basic principles of salary schedule making and to set forth the necessary steps for implementing a sound salary schedule program. The results of the work conference are being made available. Already, since this new service was inaugurated, more requests for consultative and advisory service have been received than can be handled.

Other Services

Other services provided by the Division of School Administration during the fiscal year 1946–47 included:

1. Preparation of Part I of the Educational Directory *Federal and State School Officers.*
2. Staff assistance in the establishment of a Veterans' Information Clearance Service in each State for the purpose of providing veterans with information regarding curriculum vacancies and housing accommodations in schools and colleges within each State.
3. Handling the school records of students who attended War Relocation Center Schools. More than 750 requests for the records of such students, chiefly from universities and colleges, were received and answered during the year.
4. Preparation of a number of articles and several bibliographies for publication in SCHOOL LIFE or other educational journals, bulletins, and yearbooks.
5. Assistance in the program involving the disposal of surplus property to the schools and colleges of the Nation as set forth in the following pages.

SURPLUS PROPERTY PROGRAM

THE DIVISION OF SURPLUS PROPERTY UTILIZATION, during the first quarter of the fiscal year 1947, and its successor, the Surplus Property Utilization Program in the Division of School Administration, during the last 3 quarters of the fiscal year, provided professional and technical services to the War Assets Administration, the Army, the Navy, and the 48 State Educational Agencies for Surplus Property in the disposal of federally owned surplus and donable property, both real and personal, to both public tax-supported and private nonprofit tax-exempt educational institutions of all levels. A staff of 200 was employed during the first quarter and 100 during the last three quarters.

Professional and technical services to the War Assets Administration were furnished in the various special discount programs, and in the disposal of real property to educational institutions. The services included the furnishing of data relative to the needs of educational institutions for personal property and the determination of the adaptability, utilization, and need for real property requested by individual institutions.

Professional and technical services were furnished to the Army and Navy in locating, screening, and freezing excess donable property for educational claimants. Allocations were made between States of all such available property, and applications approved on the basis of need and utilization. Several special programs were maintained for the Signal Corps, the Chemical Corps, and the Army Air Forces.

Advisory services were furnished to the 48 State Educational Agencies for Surplus Property in their continuous revision and adaptation of procedures necessitated by changes in WAA, Army, and Navy regulations, and in the development of procedures by the State Educational Agencies for consolidated State purchases by means of revolving funds and the establishment of central warehouses.

Real Property

During the fiscal year 1947 approximately 800 applications, submitted by educational claimants for real property, were reviewed and recommendations made to War Assets Administration on the basis of independent investigations and surveys to determine the need for and the utilization of the real property for educational use. The applications included both intact transfers (transfers of land and buildings, including personalty) and war housing transfers (buildings to be moved off site).

Consultative and Advisory Services to War Assets Administration, Army and Navy

Continuous services were rendered during the fiscal year 1947 to the War Assets Administration relative to the acquisition of surplus property by eligible educational institutions. These services included professional advice in regard to: Kinds of property which schools could effectively utilize; procedures by which eligible claimants could acquire surplus property most effectively, particularly through the State Educational Agencies for Surplus Property; and potential needs of eligible claimants. Professional services were rendered to the War Assets Administration in special programs such as the nominal pricing programs for self-recording theodolites, metal-working machinery, child-care equipment, optical instruments and accessories, tracing paper, and maps.

Army and Navy Donation Program

The Army and the Navy donation programs also were implemented. Approximately 400 "accredited assistants" were assigned by the Office of Education to assist its field representatives in the location, screening, and freezing of donable Army and Navy equipment at approximately 500 Army and Navy installations. These "accredited assistants," under the supervision of the field representatives, prepared lists of donable property to be allocated to the various States and then to the institutions within the States. Property reported on these lists was allocated to 48 States and the District of Columbia. The estimated acquisition value of the donable Army and Navy property contained in these lists was $150,000,000.

AMERICAN PRINTING HOUSE FOR THE BLIND

One of the principal functions of the American Printing House for the Blind, located in Louisville, Ky., is to supply the Braille books and tangible apparatus, such as topographical maps, Braille writing devices, and talking-book records, for the education of the blind in the public educational institutions for the blind throughout the United States, its Territories, and the District of Columbia. For this purpose, the Congress appropriates annually the sum of $125,000. Allocations of books and materials are made to the several schools on the basis of their enrollments. The superintendents of these schools are ex offiicio trustees of the printing house.

The printing house maintains large catalogs of Braille books, talking books, and Braille music publications. The schools for the blind are thereby provided a rich collection of educational material from the kindergarten through high school. Through the medium of embossed books, talking books, and Braille music, the schools for the blind are able to offer instruction which parallels the courses of study in the best public schools. In addition, extensive courses are given in manual arts, home economics, and music. The blind children of the whole country are being given educational opportunities which compare favorably with those offered seeing children in the public schools.

For the 6,000 blind children in the schools for the blind, the printing house provides a continuing service from year to year which consists of making necessary reprints of Braille books and talking books already in print, the embossing and printing of all new texts and reference materials necessary to keeping the lists of publications up to date, and in the manufacture of any and all types of tangible apparatus approved by the instructors of the blind.

COLUMBIA INSTITUTION FOR THE DEAF

The work of the Columbia Institution for the Deaf is devoted to the instruction of deaf persons. It is composed of four departments as follows: Kendall School, Gallaudet College, the Normal Department, and the Research Department. The aim of the Institution is to further the advancement of deaf persons through various educational means and through research work.

Kendall School

This department is for the younger deaf children of the District of Columbia. This past year the enrollment was 71, 54 of whom were from the District of Columbia and 17 from out of town.

The work of the Kendall School extends through all grades up to college entrance. The oral method of instruction is used in this department. However, there are children who cannot make satisfactory progress orally, and we are, therefore, prepared to use any and all methods which will bring results. The hard of hearing children of the District are educated in day classes in the Public School System. Occasionally some of those sent to us by the District authorities have some residual hearing, and we have multiple hearing aids for these students.

This past year a class for preschool-age deaf children was started. The results of this work were so encouraging that we expect and plan an expansion of this project.

Some pre-vocational work is provided the students in this school. We find that upon completion of their work in Kendall School the students have little difficulty in getting positions which enable them to support themselves.

Gallaudet College

This department of the Columbia Institution for the Deaf was established in 1864 by act of Congress. It is for deaf students throughout the United States whose hearing loss is so great that they cannot succeed in colleges for hearing students. A liberal arts course is offered those who pass the entrance examinations. This past year the enrollment was 70 girls and 90 boys, or a total of 160. These students came to us from 35 States and Canada.

Gallaudet College requires of its students a preliminary year, or preparatory year, so that we may be certain their normal high school work has been completed. Most of the entrants come to us directly from the State schools for the deaf throughout the country with an average of 11.7 school years.

The curriculum of the college is similar to that of any other American college which offers 4 years of work toward a bachelor's degree. Courses provide basic training in chemistry, bacteriology, the graphic arts, foods and clothing, and training for a teaching career. Many of our graduates go into the teaching profession in the various schools for the deaf and have been exceedingly successful in this field.

The methods of instruction used in the college are determined by the needs of the courses. Usually the manual means of communication is used combined with the use of speech and lip reading. Very few of these college students have any remnant of hearing left; acoustic aids are provided for those who do. Special instruction is provided in speech and lip reading. The college also has a visual aid department with expanding services.

Students show a decided interest in literature, particularly poetry. Their contributions have won high acclaim in literary contests in competition with students from other colleges and universities. A similar interest is shown in dramatics. The students produce and stage their own plays in the college auditorium.

The athletic program of the college consists of intramural activities and also intercollegiate competition. The college is a member of the Mason-Dixon Conference, which is composed of 13 colleges and universities in this area. Competition includes baseball, football, basketball, wrestling, cross country, and track.

The students publish their own combination newspaper and magazine called *The Buff and Blue*.

Normal Department

This department is for hearing young men and women who wish to teach the deaf. They must be graduates of accredited colleges. This past year the enrollment in this department included four women and eight men. Five of the men were veterans. This department has been singularly successful in the number of graduates who have gone into administrative work in our profession. At the present time a large proportion of the superintendents of the State schools for the deaf are men who took their training for work with the deaf in this department. Last year there were a total of 47 teachers training for work with the deaf in training classes in the United States. Of this number 12 were in this class.

Research Department

This is a growing department and was organized to meet the demand of the schools for the deaf in the United States for some central point where research work could be carried on for the advancement of the education of the deaf in this nation. As the department grows, the Columbia Institution for the Deaf will bear an increasingly large responsibility for the development of better techniques in the education of the deaf and hard-of-hearing child.

HOWARD UNIVERSITY

Howard University, located in the District of Columbia, operates an undergraduate college, a graduate school offering the master's degree, and eight professional schools as follows: Medicine, dentistry, pharmacy, engineering and architecture, music, social work, law, and religion. This institution is the only university organization in the States, where the majority of Negroes live, which offers to their youth a wide scope of undergraduate, graduate, and professional opportunities.

Enrollment

During the school year 1946–47, Howard University served a total enrollment of 7,120 students. This represented a net increase of 1,990, or 38.8 percent, above the enrollment of 5,130 students for the previous year. These 7,120 students were registered in the 10 schools and colleges as follows: The graduate school, 521; the college of liberal arts, 4,732; the school of engineering and architecture, 545; the school of music, 346; the school of social work, 222; the college of medicine, 273; the college of dentistry, 169; the college of pharmacy, 138; the school of law, 130; and the school of religion, 44.

Geographical Distribution of Students

An analysis of 6,605 regular degree-seeking students, shows that they came to the university from 42 States and 13 foreign countries. Their distribution by regions is as follows:

New England States	131
Middle Atlantic States	998
South Atlantic States	4, 026
East North Central States	389
West North Central States	135
East South Central States	473
West South Central States	399
Mountain States	17
Pacific States	37
Total	6, 605

Teachers

This enrollment of 7,120 students was served by 426 teachers. Two hundred and fifty-one of these teachers were giving their full-time devotion to instruction, while 175 were part-time members of the staff.

Together they constituted a full-time equivalent staff of 303.8 teachers distributed as follows: College of liberal arts and graduate school, 154.9; school of engineering and architecture, 19.1; the school of music, 22; the college of medicine, 61.9; dentistry, 18.7; pharmacy, 4.3; the school of social work, 5.8; school of law, 8.3; school of religion, 7.9; total, 302.8.

These teachers were distributed by rank as follows: Professors, 58.9; associate professors, 43; assistant professors, 55.9; instructors, 122.4; assistants, 17.1; clinical assistants, lecturers, visiting professors, fellows, 6.8; total, 302.8.

Graduates

At the end of the school year 1946–47, Howard University graduated 489 students and awarded 4 honorary degrees. These 489 graduates were distributed as follows: Liberal arts, 262; engineering and architecture, 5; music, 17; graduate school, 33; social work, 15; medicine, 65; dentistry, 42; dental hygiene, 7; pharmacy, 10; law, 26; and religion, 7. Total 489.

The university has graduated altogether 12,982 persons. The largest number and percentage of these are engaged in teaching. Two thousand one hundred and eighty-seven have entered the practice of medicine; 1,113 the practice of dentistry; 1,289 the practice of law; 693 the ministry of religion; 579 the field of pharmacy; 184 the field of engineering and architecture; 231 the field of business administration. These alumni are found at work in 42 States and 24 foreign countries. In the 42 States they constitute a cross-section of the leadership of the Negro people and are, by far, the largest and most diversified group of trained public servants related to any single institution in their field.

Veteran Enrollment More Than Trebled

During the school year 1945–46 the enrollment of veterans at the university reached a maximum of 761 during the spring quarter. Conservative calculations had led us to believe that, at most, about 900 of the returned soldiers would come to Howard University. Instead of the 900 whom we expected, however, the enrollment of veterans reached a peak of 2,390 for the spring quarter of 1947, with an average of 2,307 for the year—part of a flood which threw more than 2 million students to the higher educational institutions of the country as against an expectation of somewhat above 900,000.

These veterans were distributed among the schools and colleges as follows: College of liberal arts, 1,532; the graduate school, 56; engineering and architecture, 337; music, 57; medicine, 107; dentistry, 65; pharmacy, 66; law, 58; social work, 17; religion, 12; total 2,307.

Throughout the year the university maintained a special veterans' advisory service, for these men and women. A total of 2,500 made use of this service, for counsel in connection with every form of problem—financial, scholarship, marital, emotional, physical, home adjustment, and vocational choice.

The university also gave special thought to such modifications of instruction requirements, credit transfers and credit for work done in the Army, remedial courses, etc., as were needful to enable the veterans to take the best possible advantage of the educational facilities available.

In view of the abnormal experiences many of these men had passed through in the war, it was expected that they might constitute a problem both in their studies and in their human relations. Quite to the contrary, throughout the school year they were as a group eager, earnest, and well-balanced. They constituted an asset to the university both in the region of scholarship and of morale.

They were on the whole so happy in their relations at Howard University that, in answer to a written inquiry, 97 percent of them indicated their purpose to return during the school year 1947–48, and most of these continued their work in the Summer School.

At the end of the school year 1946–47, 127 veterans were graduated.

Increased Enrollment Overwhelms Teaching Staff and Physical Plant

The outstandingly significant fact in the work of the school year 1946–47 was the unprecedented and unexpected increase in enrollment.

The university had expected to receive in 1947 a total of 5,130, or the full-time equivalent of 3,167 students, in all its schools and colleges, not more than 2,800 of whom were expected to appear in the autumn quarter. The budget for the year 1946–47 was set and approved on this basis.

When the autumn quarter of the school year opened, however, the university was confronted with 5,445 full-time students, actually on the grounds. This represented an increase of 2,685 full-time students—an all but doubling of the student body, which overwhelmed the teaching staff and heavily overcrowded our plant.

But the university could not turn this enrollment away, for 2,253 of them were returned soldiers, seeking to take advantage of the educational opportunities offered to them by a grateful government.

These students, of course, brought increased fees; but these fees were far from adequate to take care of the expansion of instructional facilities required to teach them at anything approaching the qualitative level provided in the original budget. The legislation of the Veterans' Administration was not flexible enough to permit substantial increases from that quarter. We were obliged, therefore, to seek an emergency appropriation from the Government.

Emergency Measures to Take Care of Teaching Efficiency

Through the swift and vigorous cooperation of the Administrator of the Federal Security Agency and the Bureau of the Budget, approval was had from the President of the United States and from the Congress for an emergency appropriation, to supplement a like amount from university funds, for the employment of 116 additional teachers, 18 assistants in instruction, 20 additional persons in the offices of general administration, 6 additional assistants in the library, 15 additional employees in the operation and maintenance of the buildings and grounds and for additional instructional supplies and equipment.

The work of employing so many persons after the school year had begun was very difficult—especially in the field of instruction. Sufficient instructors and assistants were found, however, to keep class sizes, on the whole, within reasonable limits.

The regular members of the faculty, being moved by a strong sense of duty toward the returned veterans—responded manfully to the challenge of the increased enrollment and went forward with their work in a very hearty spirit.

Decision to Restrict Enrollment

Nevertheless, we were conscious of delivering at best a greatly weakened quality of undergraduate education, for even the augmented staff was adequate for teaching purposes only on that minimum basis characteristic of junior colleges, and wisdom seemed clearly to suggest that no further increases be admitted in this area at this time. The school year 1947–48, therefore, will see the freshman class in liberal arts restricted below the numbers admitted in 1946–47, and the freshmen classes in medicine, dentistry, pharmacy, law, engineering, and music held severely to restricted quotas.

Emergency Measures to Provide Adequate Physical Facilities

The unprecedented enrollment of 7,120 students placed an unbearable strain upon the physical plant. There was, for example, a quarterly average of 3,500 students from 42 States and 13 foreign countries, seeking to procure dormitory space (exclusive of the students attending the university from the District of Columbia). The National Housing Agency, Federal Public Housing Authority, hastened to make available to us 6 temporary wooden structures for the housing of 317 veterans. When these accommodations were united with the regular permanent living accommodations on the campus, however, it was still not possible to accommodate more than 1,100 of these 3,500 students with dormitory spaces on the campus.

The university was fortunate in securing accommodations in temporary wooden structures as far out as Twenty-first Street NE., to accommodate 500 others. We were thus able to accommodate a total of 1,600 out of the 3,500 needing such accommodations. The remaining 1,900 were obliged to live in the crowded city, and many of them under circumstances which made effective study all but impossible.

The university took immediate advantage of the offer made by the Federal Works Agency, Bureau of Community Facilities, through the United States Office of Education, to provide temporary wooden structures to accommodate as far as possible the increase of enrollment due to the 2,300 veterans registered. Two classroom buildings, a gymnasium and four quonset huts for military science and tactics were secured and were rushed into erection at the earliest possible moment. They could not be made available, however, for use earlier than the first quarter of the school year 1948.

Meanwhile, emergency repairs upon the greatly overstrained plant were pressed forward as rapidly as possible and valuable items of equipment were obtained, with but very limited cost, from the war surplus property.

Accelerated Advance Planning of Permanent Buildings

The full-time enrollment for 1947 exceeded by more than 1,000 the maximum full-time enrollment expected at Howard University at the peak of the development planned in the official 20-year program approved in 1931; but the permanent building program required to accommodate that maximum student body was but one-third the way toward completion. As early as the appearance of the then peak enrollment of 5,130 students in 1946, all agencies of the Government were united in the conviction that the emergency situation called for the speediest possible advance planning and construction of the permanent buildings required by the university. That conviction has been confirmed and strengthened, and vigorous measures have been taken in both directions.

In the school year 1946–47 appropriations were made available for the advance planning of five of the permanent building projects as follows: A dental school building, a building for the school of engineering and architecture, two additional units of women's dormitories and an auditorium and fine arts building. By the end of the school year the university had completed its educational studies on the dental school building, the engineering and architecture building, and the two additional units of the women's dormitories. The requirements for the engineering and architecture building and the two units of the women's dormitory buildings had passed through the hands of the architects in the Public Buildings Administration in satisfactory form and were under process in the architect's hands. The plans for the new dormitories were well under way with the prospect of being submitted for bids before the close of the calendar year 1947.

In further consideration of the need of hastening the building program, the Congress before its adjournment in June of 1947 authorized a further appropriation to provide advance planning for the following additional five projects: Three units of men's dormitory buildings, an administration building, a biology building and greenhouse, a building for the school of law, and the alteration of Thirkield Hall, so as to provide for the efficient service of the department of physics under modern conditions.

Appropriations for Early Construction of Permanent Buildings

And in order that there may be no permanent delay the Congress of the United States has made available appropriations and authorizations which make it possible for contracts to be let upon the two women's domitories, the engineering building, the dental building, and the auditorium fine arts building, as soon as the plans and specifications are completed.

Elements of Qualitative Significance in Professional Enrollments

Meanwhile, even in the midst of overwhelming enrollment pressures, certain clear evidences of qualitative progress appear. Among these is a very significant development with regard to practically all of the professional schools. All of them except religion (1) have a student body of much higher selectivity than in the past, (2) a student body of sufficient numbers to justify all the expenditures required to support first class instruction, and (3) a student body prepared—almost 100 percent—to pay their bills, and thus to buy the time to study and to think.

Accreditment of the School of Music

The tentative accreditment of the school of music of Howard has been confirmed, and the school has been received into full membership by the National Association of Schools of Music.

This final accreditment followed upon a new and exhaustive 2-day examination of the work of students and teachers by Dr. Donald Swarthout, president of the National Association of Schools of Music, and Dean of the School of Fine Arts of the University of Kansas.

In making his report and recommendations to the National Association of School of Music, upon which the final and full accreditment was based, Dr. Swarthout said:

> With all this in mind, we come back to a feeling that the school is in a flourishing condition, that a high level of instruction is being offered and that a fine seriousness of purpose is in evidence throughout the music school. We are recommending, therefore, that full membership in the association be now accorded Howard University.

The Status of Accreditment Throughout the University

All the major schools of Howard University are now approved by official accrediting agencies with the exception of engineering. This stage of nonaccreditment is not due to any deficiency of the faculty. The faculty was highly praised by the accrediting association some several years ago, and the school was tentatively accredited then on account of the strength of this fact. The nonaccreditment is due wholly to the physical conditions confronting the school—its lack of a first-rate building and of needed equipment. Now that the Congress has appropriated money for the planning and erection of this building we can look forward to the day when engineering will receive full accreditment. The student body of 545 in this school marks the first substantial enrollment of Negro youth in the field of engineering and architecture since the emancipation.

The college of dentistry is conditionally accredited. It is one of the many schools in the United States in this category. This conditional accreditment is here again not based upon any deficiency in the faculty of dentistry. Our faculty in dentistry is rated as among the best eight in the United States and Canada from all points of view. It is rated among the best four from the point of view of academic preparation. Here again the stumbling block lies in the inadequacies of the equipment and the building. Now that Congress has appropriated money for the planning and erection of this building, we can look forward to the day when this college, also, will be fully accredited. Then all of our schools at the university will have received accreditment without condition.

This accreditment must, of course, be considered as the achievement of the first milestone only. Accreditment by the official national accrediting agency is only a minimum accomplishment. We cannot be satisfied until we have made each and every one of these schools a highly competent institution in the most real sense—producing great teaching, great research, and great creative contributions to the advancement of knowledge in their several fields.

SECTION THREE

PUBLIC HEALTH SERVICE

FOREWORD

Events of 1947, both national and international, have shown that we are in a period of transition as regards the role of public health in modern society. We are continuing to break away from the traditional concept of public health which is limited principally to environmental sanitation, quarantine, and immunization. The new concept builds on this base but encompasses the additional problems of providing physical facilities and personal health services essential to healthy populations.

During the past year, health leaders from many nations have reported that everywhere there is evidence of progressive development toward more comprehensive health programs. In the United States, particularly, health activity during the last 12 months has reflected clearly this broadening of public health policy.

Our expanding program in the United States has taken the form of concrete action on many new health fronts in 1947. Under the hospital survey and construction plan, individual States for the first time have surveyed their over-all health facilities and have developed plans to construct the hospitals and health centers needed to serve their people. A three-pronged program to combat mental illness has gone into operation—training new personnel, establishing local mental hygiene facilities, and expanding research in mental disease.

Active participation has been maintained by the United States Representative on the Interim Commission of the World Health Organization and the constitution of this organization was presented to the United States Congress for acceptance. Research was intensified on cancer and other diseases of middle and old age which now take the greatest toll of American lives.

Progress in our expanding program is being jeopardized by the acute shortage of medical and other types of health personnel. This shortage severely handicaps present health activities and discourages the initiation of new and needed services. We are in urgent need of a national program of action to surmount this obstacle to advancement.

The health program in the United States owes a large measure of its progress to Federal grants-in-aid to States for health activities. The year 1947 marks the beginning of the second decade of this type of Federal assistance. Ten years ago Congress launched the grants-in-aid program, appropriating for the first full year of operation $8,000,000 for general health purposes; $3,800,000 for maternal and child welfare; and $2,850,000 for crippled children. In 1947, Congress appropriated more than $60,000,000 of Federal funds—exclusive of grants for hospital construction—for use in the coming year for grants-in-aid programs in the health fields.

In a succession of acts, Congress has provided funds for an increasing range of health programs as the grants-in-aid system has shown its value and workability. In 1939, separate payments were initiated for venereal disease control and later similar steps were taken in tuberculosis control and industrial hygiene. This principle of Federal assistance also has been followed in three new programs: Hospital Construction, Mental Health, and Cancer Control.

The earliest payments, commencing in February 1936, helped health agencies in some measure to overcome the stresses of depression and were a powerful force in the expansion of local health facilities.

During the war years, grants-in-aid and emergency programs of additional Federal assistance played an important part in maintaining a high level of national health despite abnormal concentrations of population and other war-related hazards.

Experience has shown that Federal aid, administered through district offices familiar with the particular needs of the area, has strengthened State and local programs—maternal and child health, venereal disease, tuberculosis, cancer, industrial hygiene, and mental hygiene as well as basic general health programs. Cooperation has stimulated higher standards, increased local sense of responsibility, and encouraged larger local and State funds for health purposes.

As a means of encouraging health services when and where they are most needed, grants have been allotted among the States according to population, financial needs, and special health problems. In effect, Federal payments made to the States become State funds within the limits of the trust specified by law. Thus, States and localities have been aided in strengthening and extending their health services without transfer of either fiscal or administrative responsibility to the Federal Government. By requiring merit-system administration as a condition for receiving funds, grants-in-aid have helped to increase employment security and opportunities of employees in the health field, contributing toward the development of a career service in public health.

Largely as a result of Federal assistance to the States, it has been possible to bring public health work to new geographical areas and to add new services to established health departments. With Federal aid supplemented by consultant and demonstration services provided by the district offices of the Public Health Service, many States have inaugurated programs in dental hygiene, nutrition, industrial hygiene, nursing, health education, training, personnel administration, and the supervision and promotion of local health services. All States now have cancer control programs at least at the planning stage and every State has established programs for control of venereal disease and tuberculosis.

Perhaps the best measure of the effect of grants is the large increase in the number of local public health departments. According to available data, only 14 counties in 1915 had local health departments under full-time administration and this figure had increased to only 762 by 1935. Not only was there a scarcity of local units when Federal grants began, but many States lacked a directing force for their promotion and supervision. By the end of the fiscal year 1940, however, 1,577 counties had health departments with full-time administrators or were included in districts with full-time direction. In spite of difficulties in obtaining personnel, curtailing expansion during the war, there were 1,851 counties with full-time health organizations by June 30, 1946. Despite this extensive growth, only 3.4 percent of the people in these counties are served by health departments with enough personnel to meet accepted minimum standards.

Not only has past health progress been aided greatly by Federal grants to States but future accomplishments also will be furthered by our effective use of this system. This pattern of Federal-State cooperation provides an important tool for the health work ahead.

Public Health and Health Activities in the United States

Health statistics.—Health conditions this year were generally favorable. The few exceptions did not contribute significantly to the total mortality and morbidity.

In general, mortality declined in the United States in 1946. The total death rate for the country, 10.0 per 1,000 population, excluding the armed forces overseas, was the lowest that has ever been reported in the history of the death-registration area. The infant mortality rate likewise declined, reaching a new low of 33.8 per 1,000 live births. The total number of registered deaths was 1,395,617 as compared with 1,401,719 in 1945.

At the top of the list of the causes of death were diseases of the heart with 30.8 percent of the total deaths; cancer, 13.0 percent; intracranial lesions of vascular origin, 9.0 percent and nephritis, 5.9 percent.

Reductions occurred in 1946 in the mortality from a number of the major communicable diseases. Deaths from pneumonia and influenza declined from 68,386 in 1945 to 62,324 in 1946 and deaths from syphilis from 14,062 to 12,955. The number of tuberculosis deaths was 50,911 as compared with 52,916 in 1945.

The total number of deaths from the three major diseases of the cardiovascular-renal system was 636,577 as compared with 641,550 in 1945. Deaths from cancer, however, increased somewhat from 177,464 to 182,005 in 1946. On the less favorable side of the picture relatively large increases occurred in the number of deaths from several causes, notably motor-vehicle accidents and homicide. There were 33,411 deaths from motor-vehicle accidents in 1946, 19.0 percent more than in 1945, and 8,784 deaths from homicide as compared with 7,412 in 1945.

A smallpox outbreak, concentrated in the States of Washington and California, resulted in 80 cases and 19 deaths early in the year; another, in New York State, resulted in 12 cases and 2 deaths during March and April. During the New York outbreak more than 6 million persons voluntarily sought vaccination—a record in our public health history. Influenza reached epidemic proportions in March. In the fourth consecutive year of high incidence in poliomyelitis, reported cases totaled 25,000, the largest number since the 30,000 reported in 1916. The two epidemics are not strictly comparable, however, because in recent years there has been an increasing proportion of nonparalytic cases and a decreasing fatality from the disease. Most other reportable diseases were at about average levels. Diphtheria continued to decline from its relatively high incidence in 1945 of 14.1 cases per 100,000 population; for the calendar year 1946, the incidence was 11.7 and the trend continued downward in the last half of the present fiscal year.

Research, demonstrations, studies.—The steadily expanding program of grants-in-aid for research promises to stimulate new advances in scientific inquiry just as grants-in-aid to States have spurred other health activities. The research-grants program launched late in 1945 to support peacetime studies in medical and related fields already has stimulated numbers of significant projects. This program has the benefit of recommendations by 250 of the Nation's top civilian scientists, who, as consultants serving on study sections of the National Institute of Health, determine the research which they consider most essential to the improvement of the Nation's health. Projects in various fields are passed on by three legally constituted councils—the National Advisory Health Council, the National Advisory Cancer Council, and the National Advisory Mental Health Council. The program grants funds to independent scientists and private institutions without any effort to place them under Government control. During the year, 1,180 applications for grants were received, and awards of nearly $3,500,000 were made. Since the first payments in January 1946, a grand total of more than $10,000,000 has been paid in research grants through August 31, 1947. As a result of the greatly expanded grants-in-aid funds available for cancer research, there was a sizable increase in applications for such grants; of these, 121 were considered, and 96 recommended. In addition to grants-in-aid for research, funds are provided for research fellowships. Scientists who receive such fellowships are not obligated to enter the Public Health Service or any other Government organization upon completion of their training.

The National Institute of Health received the Lasker Group Award of 1946 "in recognition of its fundamental contribution to the prevention and control of disease."

During the year, the new Memorial Laboratory, at the National Institute of Health, was dedicated to the Public Health Service scientists who died of illness contracted as a result of their work in infectious diseases. Specially designed for research on dangerous infectious diseases, this laboratory insures maximum protection for occupants and provides facilities for an expanded program of research in poliomyelitis, tularemia, typhus fever, and brucellosis.

In the National Cancer Institute three new units and research programs were established. The new endocrinology section will develop its program around clinical studies of the endocrine aspects of cancer and experimental studies of the hormone factors affecting tissue growth. The experimental program of the new field unit, laboratory of oncology, will include studies of physiology of patients with neoplastic diseases, electric potentials and other characteristics of neoplastic tissues, experimental chemotherapy of human cancer, and immunologic properties of fractions of human tumor tissue. The new epidemiology section will obtain data from cancer patients and controls in an effort to establish the factors in the life history of man which may relate to cancer.

Other studies established that genetic differences in mice have a definite effect in determining whether or not a mouse will develop a mammary tumor. Cobalt was discovered to inhibit tissue respiration. Data accumulated during the year showed impressively that carcinogenesis in guinea pigs, rabbits, and other small animals is the paramount biological effect of long-continued irradiation. A method was found for isolating mitochondria from cells.

In research at the National Institute of Health, rickettsialpox was identified as a new disease in which the house mouse is the probable reservoir. Other investigations indicated that immunity to diphtheria is not as high in children immunized at 6 months as at 6–23 months of age, and size of household was revealed to be a factor in diphtheria immunity. A new and more accurate test to measure the potency of influenza virus vaccines was developed and adopted as the official standard test. A series of studies was initiated on the physiological and biochemical aspects of cardiovascular diseases. An exhaustive study was made on the analgesic action and addiction liability of the German drug, amidone. Several studies are in progress on the biological action of radiation; radioactive isotopes are being used in hematology research.

Work was continued this year in the long-range study of changes in dental caries incidence of 8,000 school children, as the result of fluorination of water supplies. Topical application of fluoride solution has been conclusively demonstrated to reduce caries incidence by approximately 40 percent.

As the result of the successful trial of the sulfone drugs in the treatment of leprosy, it became possible this year to bring hope to the victims of this disease for the first time in its history. The new sulfone treatment was developed in systematic studies carried on since 1941 by the medical staff of the National Leprosarium at Carville, La.

During the year, 7,646 subjects were examined for physical signs of nutritional deficiencies. Diabetes incidence surveys of more than 6,000 persons indicate that almost twice as many people in this country have diabetes as was previously thought. The electrokymograph, the first potential case-finding tool in heart disease control, was completed and its usefulness and application have been shown in demonstration.

For the prevention of tuberculosis, a broad program of research was initiated with some 15,000 children to evaluate BCG, a tuberculosis vaccine; meanwhile at NIH a killed vaccine prepared by ultraviolet irradiation of virulent human type tubercle bacilli was developed which, tested in animals, yielded protection of the same magnitude as does live BCG. Investigations continued on the relative benefits of penicillin, alone and in combination with other compounds, for the treatment of early syphilis. Detailed studies continued on sensitivity to histoplasmin which is associated with a subclinical condition resulting in nontuberculous pulmonary calcification.

Studies were made of the respiratory hazards of arc-welding in shipyards, the health of workers in the cemented tungsten carbide industry, and dermatitis in citrus industry workers. Other studies were made of the environment of industrial workers and of their sickness and disability experience.

A Nation-wide survey of sanitation facilities showed that nearly 8 billion dollars of construction and improvement were needed to bring these facilities up to desired standards. This gives the Service, for the first time, factual data to help us toward one of our main objectives, a healthy sanitary environment for everyone.

A survey of budgeted public health nursing positions highlighted the serious shortage of professional personnel. Exclusive of New York City, there were 2,489 vacancies at the start of the calendar year and an additional 1,194 vacancies were expected by mid-year. A study of nurse utilization, conducted by the Boston Marine Hospital, led to plans for reassignment of duties.

Hospital Survey and Construction Act.—Since the passage of the Hospital Survey and Construction Act, in August 1946, all States and Territories have begun surveys to determine their needs for hospitals, health centers, and related facilities. Based on these surveys, plans are being developed providing for health facilities to serve the whole population. During the year, each State or Territory designated an official agency to direct its program. States also were active in passing enabling legislation, hospital licensure laws, and other laws in carrying out the provisions of the Act.

Under the Act, Federal aid up to a total of 375 million dollars over a 5-year period is authorized to meet one-third of the cost of construction. Every dollar of Federal funds must be met by 2 dollars of State or local money. According to current estimates of need and of construction costs, even this comprehensive program will produce only about one-fifth of the health facilities the Nation now needs. It is, however, an excellent base on which to build. Some improvements to the Act would increase its utility: (1) a longer period of operation; (2) variable grant provision for more needy areas; (3) some provision for hospital maintenance.

Cancer control.—Stimulated by the first appropriation of $2,500,000 for cancer control grants, most States initiated activity in cancer control and prepared for enlarged programs. Within the Public Health Service special consultants on cancer were assigned to seven district offices, medical officers were trained in cancer control, and liaison was established with related organizations to insure integration of activities.

Mental hygiene.—At the beginning of this fiscal year, the National Mental Health Act became law when it was signed by the President on July 3, 1946. The National Advisory Mental Health Council met during the year, to assist in making plans to implement the Act. Meetings were also held with the State mental health authorities to aid them in making plans for developing improved community mental health programs. No funds were actually appropriated for the national mental health program until July 1947.

The United States Public Health Service hospitals at Fort Worth and Lexington continued to care for large numbers of mental patients and to carry out studies relative to the diagnosis and treatment of drug addiction.

Industrial hygiene.—Industrial hygiene programs in the States were strengthened by allotments totaling $1,000,000, earmarked for the first time for industrial hygiene grants. At the close of the year, industrial hygiene services were functioning in all but three States. A radiant-energy unit was created in the Public Health Service to assist States in preventing health hazards in the use of radioactive isotopes and other sources of radiation.

Tuberculosis control.—As tuberculosis control activities continued to expand throughout the Nation, the scope of the demonstration program was increased. This program, designed to show the value of modern techniques in case-finding and follow-up, operated 20 photofluorographic units, and made approximately 600,000 screening film examinations in a 9-month period. During the year, new equipment and techniques were developed, including a device for the reproduction of X-ray films. Participation in State control functions was accomplished through consultations, demonstrations, and the loan of equipment and professional personnel.

Venereal disease control.—The venereal disease control program this year placed priority on speeding up and extending tested methods of case-finding and treatment. In mass case-finding demonstrations, emphasis was given to intensified contact investigations, and education to induce the public to volunteer for diagnosis. During the year the volume of in-patient treatment reached a new peak—185,000 patients were admitted to rapid treatment centers. The next objective is expansion of the program to out-patient treatment, especially by private physicians.

Late in 1947, Dr. John F. Mahoney, Director of the Venereal Disease Research Laboratory in Staten Island, N. Y., received a Lasker Award for his work in discovering and perfecting penicillin treatment of syphilis.

Foreign quarantine.—The threat from exotic diseases was exceptionally severe this year as the result of the rise and spread of pestilential disease abroad and the increase in international air traffic, yet only one case of importation of quarantinable disease was confirmed. New air commerce regulations were added to the revised Foreign Quarantine Regulations, and the examinations of prospective immigrants at United States consulates overseas increased. Nearly 18,000,000 inspections were made at the Mexican border, where 28,000 smallpox vaccinations were done. A simplified quarantine procedure was developed for South American flights through San Juan. Quarantine clearance of ships by radio pratique, discontinued during the war, was reestablished.

Communicable disease control.—During the year, the Communicable Disease Center at Atlanta, Ga., continued to operate a comprehensive program unique in the field of communicable disease investigation and control.

One of the most important activities at CDC is conducted by the Laboratory Division. The division offers services upon request which should contribute to the improvement of clinical laboratory medicine throughout the country. Their long-range plan, now formulated and in operation, consists chiefly in evaluating existing laboratory techniques, devising new and more specific techniques where needed, and training key laboratory personnel from every State and Territory in the use of techniques. Of particular significance is the establishment of a national virus identification center to provide identification and reference services not generally available through State health departments.

Within the year the entire scope of communicable disease control activity was broadened to include plague and to give increased emphasis to encephalitis and poliomyelitis. The field laboratories of the Technical Development Division were expanded and moved to enlarged and more permanent quarters in Savannah. The Center reports that the year 1947 saw almost 35 percent reduction in typhus cases. The malaria eradication program expanded into 100 additional counties. It is notable that this year marked a significant increase in the interest and financial support of States and local communities in communicable disease control operations.

Marine Hospitals.—Our Marine Hospitals demonstrated their ready adaptability to emergency service by giving aid in the Galveston hospital to victims of the Texas City disaster in April. Within a few hours 115 disaster victims were admitted to bed care. Emergency aid was also given to scores of others. To assist, 7 doctors, 21 nurses and a laboratory technician were flown in from the New Orleans and Kirkwood (Missouri) Marine Hospitals and the Public Health Service Hospital at Fort Worth. During the year, improved economy and efficiency in the provision of good medical care was achieved in Marine Hospitals and relief stations; and increased attention was given to the further development of postgraduate training and to the utilization and training of nurses and other personnel.

Commissioned corps.—On July 1, 1947, almost one-third of the commissioned officers on active duty were assigned to advise and assist other Government agencies in the conduct of medical and public health programs. Of these officers, 265 were on assignment to the Coast Guard and other Federal agencies, 224 were assigned to State and local government agencies, and 114 were assigned to international agencies or activities.

International health.—At the first 3 meetings of the Interim Commission for the World Health Organization, members of the Service met with representatives of 17 other countries in continued effort toward establishing a single global health agency. While the Senate accepted the joint resolution authorizing the participation of the United States in the World Health Organization, Congress adjourned before the House of Representatives acted on this issue. I have served, during this year, as a representative of the United States on the Interim Commission of the World Health Organization and on the Directing Council of the Pan American Sanitary Bureau.

Work of the Liberian Mission made considerable progress during the year. Malaria control continued as a main function and a low incidence of the disease was reported. In addition to mapping, survey and drainage activities, Mission engineers built laboratories, clinics and other buildings.

As part of the program established under the Philippine Rehabilitation Act of 1946, 19 fellowships were awarded to qualified Filipinos for 1 year of training in public health methods or administration.

Administration.—To carry the increased load of expanding programs, four new divisions were established in the Service during the fiscal year: Federal Employee Health Division, Hospital Facilities Division, Research Grants Division, Division of Tropical Diseases.

The Federal Employee Health Division was organized in the Bureau of Medical Services to meet new responsibilities deriving from Public Law 658 passed in August 1946. Providing for health programs for Government employees, this law requires that Government agencies consult with the Service in establishing such programs.

In August 1946, when the Hospital Survey and Construction Act was approved, the Hospital Facilities Division was established in the Bureau of State Services. In the same month, the Research Grants Division replaced the former Research Grants Office in the National Institute of Health.

The Division of Tropical Diseases in the National Institute of Health was formed to consolidate activities of the former Zoological Laboratory, Office of Malaria Investigation, and the Antimalarial Drug Testing Section. The primary purpose of this consolidation was to coordinate and expand research in tropical medicine.

The National Office of Vital Statistics is the new designation for the former Vital Statistics Division of the Bureau of the Census, Department of Commerce, which was transferred to the Public Health Service on July 16, 1946. The office retains responsibility for the collection and publication of national vital statistics on births, stillbirths, deaths, causes of death, marriages, and divorces.

Dr. Halbert L. Dunn, Chief of the National Office of Vital Statistics, continued his outstanding work in promoting uniform classifications for the international tabulation of morbidity and mortality statistics. As a member of the United States Committee on Joint Causes of Death, Dr. Dunn assisted in preparing a classification which was submitted to the Expert Committee on Joint Cause Problems of the Interim Commission of the World Health Organization in March 1947. The U. S. Committee on Joint Causes of Death has been given the 1947 Lasker Group Award for its work in the development of the revised classification.

Problems of personnel continue to hinder expansion and improvement in numerous areas of activity. Increased responsibilities heightened the need for additional commissioned officers, yet the number of officers decreased as the result of outside monetary opportunities. To meet this situation the officer recruitment program was intensified and efforts were initiated to maintain morale and to utilize the undermanned corps to the best advantage.

Conclusion

Next year will be a period of exceptional activity in public health. New programs should emerge from the blueprint stage, and all peacetime health services promise to gather increased momentum. As the country's health workers speed their attack on vital health problems, particularly those related to chronic diseases of old age, wide public support may be anticipated. Never before has there been such keen and widespread interest in health matters throughout the land.

As the Nation strives to attain the goal of better health for all its people, three major obstacles persist. The first is the lack of public health services in many parts of the country, particularly in rural areas. Further Federal assistance, through increased grants to States, would aid greatly in extending and expanding full-time local health units, which are the foundation of our total health structure.

The second obstacle is the serious shortage of health personnel. This threatens to become progressively more acute unless substantial help is given to education for health work, and improved career opportunities are provided in the field.

Finally, there is the obstacle presented by the substantial part of our population which does not receive adequate medical care. Only the early development of measures to equalize health opportunities can prevent needless illness and death among millions of Americans. The health program recommended to Congress by the President would approach the problem through expansion of our existing social insurance system. I urge the Congress to give most careful consideration to that program inasmuch as it is designed to insure that every family in every income group would have access to needed medical care.

As we advance into this period of expanding health activity, we face these challenges with assurance. We can be confident that the people of this country will strive together to achieve the health facilities and services which are their basic right.

Thomas Parran,
Surgeon General.

OFFICE OF THE SURGEON GENERAL

The constituent units of this office are under the direct supervision of the Surgeon General, the Deputy Surgeon General, and the Executive Officer. They include six divisions: Commissioned Officers, Dental, Sanitary Engineering, Nursing, Public Health Methods, and the National Office of Vital Statistics. Also included are the Office of International Health Relations, the Office of the Executive Assistant, the Office of Purchase and Supply, the Office of Personnel, and the Budget and Fiscal Office.

Office of the Executive Assistant.—This office, which includes the Chief Clerk's Office, strengthened administrative services during the year to meet the demands of a growing agency. A program was inaugurated to make duplicated forms more useful and economical, a comprehensive study of mail and filing procedures was started, printing and duplicating were expedited, and the groundwork was laid for an improved program of records and management. Toward the close of the year, a total reorganization of general service activities was begun.

In March 1947, the Service vacated the Public Health Service Building at 1901 Constitution Avenue. Office space in that building, now occupied by the Atomic Energy Commission, no longer was adequate to house the Service and it began moving gradually to the Social Security Building and the adjacent Railroad Retirement Building. On June 30, 1947, the 1,934 headquarters employees were housed in 9 buildings in Washington, Bethesda, Md., and Suitland, Md. It is planned to consolidate ultimately in the Railroad Retirement Building all headquarters units except a few which may remain in Bethesda.

Office of Purchase and Supply.—This office is responsible for obtaining stationery, office equipment, and medical supplies for the Service. During the year, the office received a total of 11,151 requisitions, an increase of 15 percent over 1946; it issued 15,577 purchase orders, an increase of 21 percent; and made purchases of $5,104,941, an increase of 35 percent. The substantial increase of procurement activities over 1946 was due mainly to the expanded activities of the National Institute of Health and the replacement of worn-out equipment in Marine Hospitals and Relief Stations. Procurement activities were hampered by the elimination of Government priorities, and scarcity of bidders who could make prompt deliveries.

A new United States Public Health Service Catalog of Medical Supplies, with a Dental Supply Table Supplement, has been issued and all activities of the Service are required to procure items listed in the catalog from the Supply Station. The new edition features the adoption of Joint Army-Navy nomenclature of items and stock numbers, the use of the Medical sections of the Navy Catalog, and a list of standardized dental supply items.

Office of Personnel.—This office is concerned with the recruitment, classification, placement, and training of more than 14,000 noncommissioned personnel. During the year, action was taken as required in the transition from a wartime to a peacetime civil-service basis; 15 boards of examiners for the field service and 4 committees of expert examiners for the departmental service in Washington were established. Classification surveys of field positions were started at some of the larger field stations. Work on a study of the advantages of a decentralized personnel program was begun, and considerable progress was made in preparing better guide material for personnel operations.

Budget and Fiscal Office.—This office is responsible for appropriation estimates, expenditure controls, and related fiscal activities for the Service. Appropriations for fiscal year 1947 totalled $104,163,718.16; funds received by transfer and reimbursement amounted to $9,418,888.03. Fiscal statement of the Public Health Service is presented in appendix tables 1 to 4.

Division of Commissioned Officers

The Division of Commissioned Officers is responsible for the availability of a mobile corps of highly trained professional health workers. This responsibility is met through recruitment, appointment, promotion, utilization, fiscal, benefits, and morale programs.

At the end of the fiscal year, there were 1,859 officers on active duty. Of this group 841 were Regular officers, and 1,018 were Reserve officers. A total of 125 Regular and Reserve officers were on retired status.

During the year the authorized strength of the regular corps was increased by 119 to a total of 1,021.

A summary of numerical strength and personnel actions taken is presented in table 1:

TABLE 1.—*Numerical strength of Commissioned Corps on June 30, 1947, and summary of personnel actions during period July 1, 1946–June 30, 1947*

	Regular	Reserve
Numerical strength:		
Authorized strength	1,021	----
On duty	841	1,018
Vacancies	180	----
Personnel actions:		
Appointments	188	271
Terminations	157	556
Inactivations	----	222
Retirements	10	15
Deaths	4	4

The following table presents the active strength of the commissioned corps by professional category, as of June 30, 1947.

TABLE 2.—*Active commissioned officers by professional classification on June 30, 1947*

Profession	Regular	Reserve	Profession	Regular	Reserve
Medical	527	312	Pharmacist	4	23
Dental	74	108	Sanitarian		91
Sanitary engineer	63	36	Scientist	33	20
Engineer		59	Physical therapist	1	8
Nurse	134	336			
Dietician	5	25	Total	841	1,018

The division operated for the first full fiscal year under the reorganization into five sections: Recruitment, Assignment and Utilizaton, Training, Special Services, and Administration.

With this reorganization an intensive study of administrative operations has been initiated and already has produced results. An example is the simplified handling of retired officers' pay which was inaugurated on April 1, 1947. The increase in responsibilities of the Service, particularly in the fields of mental hygiene, cancer control, and hospital facilities, required an increase in the commissioned strength of the Service. This expanding need for additional officers occurred at a time when increased opportunities outside the Service resulted in many losses from the corps, particularly among the medical and dental professions. Accordingly, it was necessary to intensify the recruitment program of the Service by appointing officers to contact the professional schools. A follow-up program was instituted which resulted in a number of applications for examination for the regular corps and for appointment in the reserve corps. Arrangements were made with the Navy Department to secure the service of 75 Navy medical officers who were trained under the Navy V–12 program and committed to serve in one of the Services for a period of 2 years. The Army authorized the Service to recruit 125 medical officers from the graduates who had similarly received their training at Government expense under the ASTP program.

The Surgeon General established the professional category of "Engineer" in the Regular Corps. Examinations were initiated to acquire a suitable number of officers in this category.

Table 3 shows the functional assignments of the various categories of officers on January 1, 1947, the middle of the fiscal year.

Plans were made and candidates were recruited for systematic residency training in clinical medicine and internal medicine, general surgery, orthopedic surgery, urology, opthalmology, and otolaryngology, neuropsychiatry, pathology, and radiology. Arrangements were made to use Navy facilities to train four or five officers a year for flight surgeon duty with the Coast Guard.

TABLE 3.—*Functional assignment of commissioned officers by various professional groups, as of Jan. 1, 1947*

PROFESSIONAL GROUP

Type of activity	Medical	Dental	Engineer	Sanitary	Scientist	Nurse	Dietician	Physical therapist	Pharmacist	Total
Headquarters	56	4	28	10	9	33	1	1	3	145
District and permanent field	58	5	61	40	6	22	0	0	0	192
Marine hospitals	219	63	0	1	0	219	23	6	11	542
Mental hospitals	30	5	0	0	0	30	5	0	2	72
Second-class relief stations	39	21	0	1	0	19	1	2	2	85
Quarantine stations	21	0	0	3	0	0	0	0	4	28
Basis research (field and NIH)	72	6	2	4	15	2	0	0	0	101
Temporary field duty	10	2	4	4	0	3	0	0	0	23
In training	38	6	9	1	2	3	0	0	0	59
Coast guard	24	32	0	0	1	8	0	0	0	65
Other Federal agencies	106	30	26	2	0	36	0	0	0	200
State and local	103	4	18	35	2	62	0	0	0	224
International	33	2	17	7	0	54	0	0	1	114
Other	2	0	2	0	0	0	0	0	0	4
Total	811	180	167	108	35	491	30	9	23	1,854

A program of orientation for new officers was initiated. A total of 76 officers completed 2 orientation courses held in September and June.

Twenty fellowships for study in schools of public health have been awarded by the Rockefeller Foundation and eight by the National Foundation for Infantile Paralysis. This has enabled 28 commissioned officers to attend various accredited schools of public health for one academic year.

An active program to assist officers in securing veterans' and other legally authorized rights has been established. Better dissemination of personnel information through circular letters has been inaugurated.

Dental Division

The continuing shortage of professional dental personnel, and the release to inactive duty of officers with long service, have reduced the total productive capacity of clinical activities. At the same time demands for dental care and treatment increased. To help cope with this problem auxiliary personnel were utilized and plans were made to institute formal training programs in selected Marine Hospitals for dental interns and residents.

Statistical information submitted from field stations is being used both to measure the problem of rendering adequate dental care and treatment and to develop a pattern for more accurate determination of dental needs, costs and personnel requirements. Attempts are being made to correlate the general incidence of specific dental disorders within age groups, and to determine the annual increment of dental defects in various age ranges.

A total of 166,514 patients received dental care and treatment through the Service. The following table lists certain major items of clinical service rendered. It does not include dental services rendered by designated dentists on a fee-for-service schedule, nor does it reflect the broadening of the scope of dentistry as practiced in the operating clinics.

TABLE 1.—*Clinical services rendered by full-time dental officers*

Number of patients treated	166,514
Number of in-patient treatments	114,912
Number of out-patient treatments	643,066
Total number of treatments	757,978
Special services rendered:	
X-rays taken	67,828
Prophylaxes	39,109
Extractions	81,121
Alveolectomies	10,837
Fillings	134,897
Dentures	12,801
Vincent's treatments	9,701
Pyorrhea treatments	7,051
Fracture treatments	5,268
Bridges	1,162

Sanitary Engineering Division

The Sanitary Engineering Division directs all engineering and sanitation activities of the Service, including: professional and technical supervision of sanitation personnel; provision of technical guidance and consultant services to Federal, State and local health agencies; and the establishment of uniform sanitary engineering policies and programs.

Activities are carried on through six sections: Administrative, General Sanitation, Milk and Food, Land and Air Carrier, Vessel Engineering and Vessel Sanitation. The Water and Sanitation Investigations Station at Cincinnati, Ohio, operates as a unit of the division.

The 1947 Interstate Quarantine Regulations which became effective on June 16 replaced those of 1921. They are more specific and have greater support in law by the terms of Public Law 410 of the Seventy-eighth Congress.

Administrative Section

Sanitary engineering and sanitation personnel were recruited to staff various special projects and to provide a staff of sanitary engineer consultants in Washington and district offices. Examinations were held for appointment to the Regular Corps.

General Sanitation Section

The listing of qualified interstate dealers of shellfish, as certified by the several producing States, was published at semimonthly intervals during the shellfish season and made available to approximately 1,500 health officers and other interested parties. A rating system for evaluating the effectiveness of control exercised by shellfish producing States was instituted.

For the control of anthrax, certificates of compliance with adequate methods of sterilization were issued to those shaving brush manufacturers whose plants and equipment were found satisfactory after inspection. State and local health officers and other interested persons were notified of the identifying marks placed on brushes by such manufacturers.

The division cooperated with other Federal agencies, State and local health departments, and private organizations in numerous public health engineering problems, such as water and sewage sanitation, garbage and refuse disposal, bathing beach and housing sanitation. Special field studies and reports were made at the request of Federal agencies.

The Public Health Service Drinking Water Standards, revised and reissued in 1946, were adopted formally by the American Waterworks Association as criteria for the quality of water furnished by all public water supply systems.

The Sanitation Facilities Needs Survey was completed and a report written. The status of these needs is indicated in table 1.

TABLE 1.—*National total cost estimate for needed sanitation facilities, 1947*

[Costs in thousands of dollars]

Type of facility	Ready for construction	Planning in progress	Projects for future	Total
Water	385, 591	608, 349	1, 275, 042	2, 268, 982
Sewerage	360, 509	908, 048	2, 480, 296	3, 748, 853
Garbage and refuse disposal			166, 526	166, 526
Rural sanitation			1, 650, 220	1, 650, 220
Total	746, 100	1, 516, 397	5, 572, 084	7, 834, 581

Milk and Food Section

Activities included preparation and revision of sanitary standards recommended for State and local control of milk, restaurant food handling and frozen desserts; advisory service to States through field and office consultations with the district milk and food specialists; consultation on milk and food handling on interstate carriers; preparation of educational and training materials; cooperation with other agencies; and compilation of statistics on disease outbreaks conveyed through milk, other foods and water.

The milk ordinance recommended by the Public Health Service is now in effect State-wide in 7 States and Territories, as well as in 1,171 municipalities and 195 counties located in 38 States, with a population of more than 30,000,000. It has been adopted as a State regulation in 29 of these States. Included are 1 State and 116 municipalities with compulsory pasteurization, and 86 additional cities and 4 counties with 100 percent pasteurization on a voluntary basis. The recommended restaurant standards are State-wide in effect in 16 States, as well as in 176 counties and 387 municipalities located in 39 States, with a population of more than 40,000,000. They have been adopted as State regulations in 25 of these States.

The newly appointed Milk and Food Sanitation Advisory Board met in June 1947 to consider the numerous amendments proposed by health authorities and industry to the 1939 edition of the Public Health Service Milk Ordinance and Code. The changes approved by the board will be incorporated in a revised edition.

Upon the recommendation of the Conference of State and Territorial Health Officers, a program has been inaugurated for the publication of lists of interstate milk shippers, together with their sanitary ratings, for the information of health authorities of milk-receiving areas. Ratings of supplies are made by the milk-control authority of the shipping State, with occasional spot checks of the States' rating methods by the district offices of the Public Health Service. Acceptance of the program is entirely optional with both shipping and receiving areas.

In cooperation with the International Association of Milk Sanitarians and the Dairy Industries Committee the Service is drafting sanitary standards for the design and construction of various types of milk equipment. To date standards have been published for sanitary pipe fittings and milk storage tanks. Standards for milk pumps, weigh cans and drop tanks, and homogenizers are under consideration.

Comprehensive milk sanitation surveys were conducted by the districts in cooperation with State authorities in 8 communities, and restaurant sanitation ratings were made of 19 municipalities. A total of 658 State and local sanitarians received in-service training through 10 milk and restaurant sanitation seminars.

Nine demonstration schools for milk producers and milk-plant employees were conducted by the district officers, with an attendance of 689; 60 schools for restaurant workers, including some from National Park Service, Indian Service, veterans' hospitals, and Marine Hospitals, were attended by 9,362 persons; 13 schools for railway dining car and airline commissary personnel had an attendance of 1,863. Organized food handler schools are being conducted by many States and communities. The preparation of educational and training materials for use at such schools has been continued.

Reports from State health departments compiled for 1945 showed 20,204 cases involved in 343 disease outbreaks traced to food and drink. Of these, 26 outbreaks were traced to water, 29 to milk and milk products, 276 to other foods, and 12 to undetermined sources.

Land and Air Carrier Section

Approximately 1,600 certificates on water supplies and 3,900 certificates on watering points were issued. Of the water supplies, 86 percent were approved, 12 percent were approved provisionally, and 2 percent were prohibited; of watering points, 90 percent were approved, 8 percent were approved provisionally, and 2 percent were prohibited.

A proposed revision of the Interstate Quarantine Regulations was accepted by the Joint Committees on Railway Sanitation and Airline Sanitation. The regulations provide a legal basis for many actions which in the past have been purely voluntary. For the first time, they require plans on new conveyances and watering point installations to be submitted for review prior to construction.

A total of 99 sets of plans on watering points and 30 on new railway coaches were reviewed.

The section has maintained a close working relationship with the research sanitation project of the Association of American Railroads. Experimental units for the treatment and disinfection of toilet wastes will be installed on a number of conveyances in the near future. The problem of disposal of toilet wastes on aircraft has been solved for the present by the installation of retention tanks on aircraft with suitable servicing facilities at the terminal.

The assignment of a dining-car inspector to each district has permitted closer supervision of food served to the passengers on interstate carriers. A 1-week school for the dining-car inspectors was conducted in Kansas City, Mo., with the assistance of the district office. A comprehensive policy relating to food and drink, based on the 1947 Interstate Quarantine Regulations, was prepared and submitted to the district offices for review and comment. With the adoption of the regulations, this program will be considerably expanded.

The preparation and publication of Public Health Engineering Abstracts was continued. This monthly publication contains abstracts of scientific articles in domestic and foreign journals relating to public health engineering.

Vessel Engineering Section

Activities in sanitary aspects of the construction, reconstruction and repair of vessels included the development of standards of sanitation; the review and approval of plans related to potable water systems, wash water systems, food handling and storage facilities, plumbing, swimming pools, general sanitation, ratproofing, and certain aspects of heating, lighting and ventilation; consulting service to Federal vessel operating agencies, naval architects, shipbuilders, joiner contractors, equipment manufacturers and others; research; and advisory assistance to district offices concerned with shipbuilding.

In conferences with members of organizations representing various vessel interests—interstate carriers, American carriers in foreign traffic, and lake and river craft—it was agreed that the detailed standards of practice would not be issued as interpretations of the proposed Interstate Quarantine Regulations, but rather as a guide for Service inspectors. Of plans submitted for review, there was a marked increase in those for interstate carriers and for vessels being reconverted from war use. Periodic visits were made to naval architects and shipyards to expedite plan review. The United States Maritime Commission continued its request for joint surveys of vessels with the idea of simplifying the work at yards and minimizing extra costs at the completion of the contract.

Review of plans for 5 new vessels and 14 reconversions was completed. Contract plans and specifications were reviewed for two vessels for the American President Lines and one steel and one aluminum cargo vessel for Alcoa Steamship Co.

To provide the Army Transportation Corps with information for drinking water and ratproofing contract specifications in the reconversion of its permanent fleet of troop transports, a survey was conducted of three Army vessels—a P2, C3, and C4. Such contract specifications will stipulate compliance with the requirements of the Public Health Service.

Foreign vessels being built in this country were inspected and certified upon request. The contract for the Netherlands vessels being built at Chester, Pa., will be extended and the work continued throughout the next fiscal year. Preliminary inspections were made of the Brazilian vessels being built at the Ingalls Shipyards and the Canadian-Vickers at Montreal. Lloyds Registry recently forwarded plans covering ratproofing features of four vessels being built for the Italian Government in Genoa. The specifications stipulate compliance with the ratproofing requirements of the Public Health Service and the securing of a certificate at the completion of the contract.

Contact with manufacturers of equipment has continued in the interest of eliminating sanitary defects. The marked increase in the use of composition materials for vessels has made it necessary to obtain data regarding the resistance of such materials to the gnawing of rats. Samples of materials were tested by the Technical Research Division of the Communicable Disease Center in Savannah, Ga.

Between July 1, 1946, and May 31, 1947, the inspectors of the district offices inspected 761 vessels; issued 169 certificates on drinking water, 132 on ratproofing, 83 on deratization exemption; and installed 63 sanitary logs.

Vessel Sanitation Section

During the year, 1,199 vessel inspections were made. These revealed 21,360 defects pertaining to environmental sanitation, or an average of 17.8 defects per inspected vessel. The maximum number of defects found on any one vessel was 91; the minimum, 0. Through action instituted by district personnel, 5,726 defects, or 26.8 percent of those found, were corrected.

This section collected data on sources of potable water used on board vessels, an undertaking formerly carried on by field offices. New procedure for this work was evolved and data successfully secured from 160 companies operating in interstate traffic and 64 companies engaged in foreign trade. This information was transmitted to the Land and Air Carrier Section for use in its program of certification of sources of potable water and watering points.

Water and Sanitation Investigations Station

A pollution study of boundary waters between the United States and Canada was planned, supervised and directed in cooperation with the International Joint Commission. Field studies carried on in the Detroit-Windsor area were placed under the immediate supervision of a technical advisory committee on which the Department of National Health and Welfare of the Dominion of Canada, the Michigan Stream Control Commission, the Province of Ontario, and the Public Health Service were represented.

By arrangements made with the National Housing Agency, and with its financial support, a research and field survey program was undertaken of sewage disposal in individual household-septic-tank and subsurface-absorption systems to develop standards of design applicable to the Veterans' Emergency Housing Program.

Fundamental chemical research was conducted on factors and variations in rates of biochemical oxygen demand, on removal of hydroxybenzene (phenolic) compounds from water by natural dissimilation and by chlorine, on procedures for phenols and cresols, and on the characteristics and performance of detergents. Performance studies on four high-rate recirculating sewage filters were made. Fundamental studies indicate a complete revision of the common conception of rates of biochemical oxygen demand in sewage and streams for the most useful application of this criterion.

Bacteriological investigations included observations on the bactericidal efficiency of cationic compounds used in the dishwashing rinse waters; a cooperative study with the State Department of Health of Massachusetts and the Fish and Wildlife Service of the pollution of the clam-digging areas of the Ipswich-Merrimac Rivers; and a study conducted for the National Housing Agency on bacterial contamination and penetration of bathtubs and lavatories constructed of terrazzo-concrete and of slabs of plexi-glass material.

Cooperative investigations were conducted for and with the Corps of Engineers, United States Army, on the Smith River of Virginia and North Carolina, Roanoke River of Virginia, Clarion River of Pennsylvania, Lake Erie-Ohio River Canal of Ohio and Pennsylvania, Passaic River of New Jersey, Scioto-Sandusky River of Ohio, and the Raritan River of New Jersey.

In connection with the program of State supervision of laboratories examining milk and water samples used on interstate carriers, surveys were made of State laboratories in District No. 1. In the laboratory, research was conducted on the direct microscopic count and standard plate count of milk and on the resazurin and methylene blue reduction tests. Several home pasteurizers were tested. Dining-car practices on the Pennsylvania Railroad were studied on regularly operating trains to observe the bactericidal effects of combined detergent-quaternary ammonium compounds.

Compilation of a single tabulation of treated water supplies, untreated water supplies, and sewerage works, was undertaken in conjunction with the inventory of United States sanitation needs.

Sanitary Engineering in Other Agencies

Sanitary engineers were assigned to the Federal Public Housing Authority, to the National Housing Agency, and to the Federal Housing Administration to assist in maintaining adequate sanitation standards in housing; to the Pan-American Sanitary Bureau for duty in South and Central American countries; to the International Boundary and Water Commission, United States and Mexico, to assist in making surveys of boundary waters and promote stream pollution abatement; to the Bureau of Prisons of the Department of Justice, to assist in maintaining standards of sanitation in penal institutions.

A National Housing Agency program for investigating the most suitable type of sewage disposal for single or multi-family dwelling units located in areas not served by public water supply or sewerage systems was developed cooperatively.

Several engineers were assigned to the United States Department of Agriculture, Labor Branch, Production and Marketing Administration, to assist in maintaining sanitation standards at transient labor camps and at White Pine Blister camps operated by the Forest Service.

The usual cooperation was given to the National Park Service by the district engineers in connection with the operation of national parks and monuments and to the Indian Service in connection with sanitation problems of Indian agencies, reservations and schools.

Assistance was given to the War Department in studying the effects of impounded water projects on malaria prevalence and to study the sanitary benefits which might accrue to the areas below such impoundments because of maintaining minimum dry-weather flows.

Consultation was given to other Government agencies, including the Sanitary Corps of the United States Army, the Bureau of Medicine and Surgery of the United States Navy, Post Office Department, and Veterans' Administration. Some of this work was performed on a reimbursable basis, but much of it was accomplished by engineers in connection with other duties.

Division of Nursing

This division was created in 1946 to develop nursing policy for the Service, advise the Surgeon General on nursing problems, give professional supervision to all nurses in the Service, and handle the Service's responsibilities in nursing activities and to administer nurse education functions, including the United States Cadet Nurse Corps program.

With Nation-wide attention focused on the shortage of nurses, divisional consultants' services were made available to advise on problems of nurse education, recruitment and utilization. Upon request of State and local governments, consultants on the staff, or detailed to the division, conducted studies of nursing problems. The function of the structure of nurse education was studied in New Hampshire; plans were reviewed for the State university schools of nursing in Arkansas and New York; investigations of nursing care were conducted in Cook County, Ill., and in Denver, Colo.; and nurse education problems were studied in Denver and Detroit. Technical assistance also was provided in solving nursing problems arising in the organization of the new programs for hospital construction, mental health and Federal employees' health.

Office of Nurse Education—U. S. Cadet Nurse Corps

Since the Japanese surrender brought an end to recruitment, this program will diminish progressively as the cadets now in training are graduated. At the close of the year, only 1,054 schools were to receive funds under the program instead of 1,076 schools as formerly. Of the 22 schools not receiving further funds, 12 had only senior cadets, 1 had no cadets, and 9 transferred their cadets to other schools.

Cadet nurses graduating in fiscal year 1947 totaled 34,000, an increase of 10,700 over the previous high in 1946, and representing approximately two-thirds of all nurse graduations during the period. At the close of the year, a total of 73,000 nurses had been graduated by the program. While data are not yet available as to the fields of nursing entered by these cadet graduates, experience indicates that some 70 percent will give nursing service in hospitals and that a majority will remain in the hospitals where they received training.

Increasing numbers of students became senior cadets during the year and commenced their final 6 months of training after completing the required 30-month period of combined study and experience paid for by Federal funds. In April and May, there was an all-time high of 25,000 senior cadets, and an average of 20,000 worked during the year in their home hospitals or acquired experience in other hospitals including those operated by the Federal Government. A total of 57,000 senior cadets rendered valuable nursing service in 1947 and won public recognition by their work during the polio epidemic.

The valuable nursing service rendered by all cadets under the program is indicated further by the estimate that, prior to becoming senior cadets, 10 student nurses furnish hospital nursing care equivalent to that furnished by 6 graduate nurses.

During the year, the number of cadet nurses in the first 30 months of their training period decreased sharply. By June 30, 1947, only 33,000 remained of the 74,000 student nurses in this category a year earlier. Program costs declined accordingly. The net appropriation for fiscal year 1947 for grants to schools of nursing was $12,363,000 against $43,788,000 in 1946; funds appropriated for administrative costs declined from $611,000 to $466,000.

Termination of corps recruitment again was reflected in total new enrollments to schools of nursing. In 1946, when cadets were admitted only during the first 3½ months, new enrollments dropped to 39,820 from 61,471 in 1945. In 1947, new enrollments declined further to 32,216.

The staff of nurse education consultants on the Cadet Corps pay roll was reduced from 15 at the start of the fiscal year to 3 at its close. The offices dealing with Cadet Corps activities in six districts were reduced to five.

Visits to schools of nursing to assure compliance with regulations and to advise on program operations totaled 240 as compared with 564 visits in 1946.

By the end of the year emphasis was placed on acceleration of the auditing of grants to schools of nursing. Although the rate of auditing was increased 4 percent over 1946, further plans were developed to speed the auditing rate and the review and release of audit reports to schools of nursing.

The United States Cadet Nurse Corps News was issued periodically up to the end of the year and served as the only direct contact with all cadet nurses.

Other Nursing Activities in the Service

A description of activities of the Office of Public Health Nursing is included in the report of the Bureau of State Services, and other nursing activities are described in the report of the Bureau of Medical Services.

Division of Public Health Methods

This division has two major functions. The first is to determine the nature and extent of ill health in the population, the services and facilities which are available, and the means by which those services and facilities are employed to meet health needs. The second, carried on through the Office of Health Information, is to disseminate public health information to the public and to specialized groups.

In performing its first function the division collects, compiles, and analyzes data on general morbidity and mortality and on specific diseases and conditions, and endeavors to develop more accurate methods for the statistical processing of such data; conducts surveys and studies to demonstrate the amounts and kinds of professional personnel and facilities available; and endeavors to measure the degree to which these personnel and facilities are utilized.

Health and medical statistics.—Domestic morbidity data, compiled and analyzed by the division, has been presented in the foreword to this report.

As an aftermath of the war, widespread increase in the spread of pestilential diseases occurred in 1946. Cholera, virulent smallpox, and plague were epidemic in eastern Asia; both plague and smallpox were prevalent in the Mediterranean area of Africa, and an unusual incidence of typhus fever was reported in localities in all of the continents of the Eastern Hemisphere. Of the other important communicable diseases, the increased incidence of diphtheria, tuberculosis and the enteric diseases was the most significant unfavorable health development. (The reported incidence of the quarantinable diseases in foreign countries during 1945–46 is shown in appendix table 7.)

International statistical classification of diseases, injuries, and causes of death.—The work toward the development of an international code for the classification of both morbidity and mortality was continued through the fiscal year. The committee of medical statisticians of Canada, Great Britain and the United States completed its proposed list in March 1947 and turned it over to the Interim Commission of the World Health Organization at a meeting in Ottawa. It was then circulated to the nations of the world for comment in preparation for the decennial revision of the International List of Causes of Death in 1948. The committee immediately began work on a classified listing and index for the code. A comparative study of the new code and the 1938 version of the international list has been made. Amendments to the proposed list have been prepared and circulated. Listings of approximately 40,000 terms for the index are now being set up. This work is being done in close cooperation with the National Office of Vital Statistics and other agencies of the Government.

Heart disease and other mortality studies.—In collaboration with the Division of States Relations and with the cooperation of the National Office of Vital Statistics, an exhaustive study of heart disease mortality was undertaken. It included analysis of trends, geographic variation, urban-rural differences, and related factors, going back in time as far as the data will permit. An introductory report was completed by the end of the year, and the geographical report was in preparation.

Smaller studies begun and completed during the fiscal year included a statistical investigation of rheumatic fever based upon data drawn from a number of surveys and covering analysis of age, sex, size of city, and geographical differentials and intrafamilial clustering of cases. A further study was made of the results of continuous caudal analgesia used in 2,626 deliveries in Memphis, comparing this new technique with the usual methods in terms of the morbidity among mothers and the stillbirth and neonatal mortality among infants.

Hagerstown studies.—Studies in Hagerstown, Md., have continued with primary emphasis on the age incidence and familial aspects of chronic diseases. Analysis of the data resulting from the 1943 resurvey of Hagerstown families seen in 1921 at the time of the Hagerstown survey has been completed and is furnishing means of determining the age incidence of chronic diseases. Another aspect of the chronic disease problem which is being studied at Hagerstown is the relationship between the environmental factor and the occurrence of chronic diseases. In particular, the changes which occur in the economic status of the family are being considered in relation to the occurrence of chronic diseases. Efforts also are being made to extend present knowledge of the methods of study of the familial aspects of diseases. Existing data are being supplemented by field studies in order to assemble as much information as possible concerning the family occurrence of cancer, rheumatic fever, and pneumonia. These field studies are being conducted in cooperation with the local health department and medical profession.

Study of illness in canvassed section of Baltimore.—The intensive study of illness in Baltimore families visited each month for 5 years approached the stage of final tabulations. The study differed from previous canvasses in that the intervals between visits were shorter and the study covered a period long enough to permit the investigation of the variation in an individual's sickness record from year to year. Special emphasis was placed upon the study of "chronic disease families." As a result of this study, it is possible to measure the effect of the chronic illness of a wage-earning member upon the economic status of the family, the education of the children, hospital and general medical care. During the year, the coding of the basic material was completed and the punching and tabulating of the material was begun. Additional special coding of dental, eye, preventive medical care, clinical, hospital, and surgical data has yet to be completed.

Sickness in a metropolitan community.—In response to repeated requests on the part of various official and nonofficial health organizations of New York City, a special analysis of the National Health Survey findings for that city was prepared and published. The report contains data on the annual frequency and duration of disabling illness and the receipt of medical care.

Relationship between mortality and socio-economic factors.—A study was begun of the relationship between mortality in cities and counties and such socio-economic factors as per capita income, color composition, degree of urbanization, and the adequacy and utilization of medical facilities and services. The first report shows the relationship between per capita income and mortality in the cities of 100,000 or more population. For these cities it was found that the total death rate, the infant and maternal death rates, and the rates for 10 broad diagnosis groups, tended to vary inversely with per capita income.

Measurement of muscle strength.—A major portion of the work completed in this field during the year was concerned with the design, construction, testing and standardization of six electronic myodynemeter units and the necessary auxiliary equipment. These units are to be used in a clinical study of the method of quantitative manual muscle testing on patients at the Massachusetts General Hospital, Boston, Mass., Children's Hospital, Washington, D. C., and Children's Hospital, San Francisco. They also are to be used in a comprehensive study of normal muscle functions among public school children in Bethesda, Md.

During the year, considerable testing has been completed on children in a Bethesda elementary school. These tests were designed to yield information on the testing technique method, the reliability and variability of the test results, and on related problems encountered in conducting such tests of muscular strength. On the basis of these studies, a program has been outlined for examining a large number of children between the ages of 6 and 14 years during the coming year.

Studies on dental disease.—In cooperation with the Dental Division, New Jersey Department of Health, comprehensive studies have been initiated on the effects of 20 years of exposure to waters containing fluoride. The study was undertaken to anticipate the effects which are expected to follow artificial fluorination of public water supplies. The findings thus far available indicate that among migrants moving into the fluoride area, those earliest to arrive in terms of age are protected most while those most recently arrived are least protected.

Also, in cooperation with the New Jersey State Department of Health, dental findings have been obtained in a control area of New Jersey. There is some indication that certain drinking waters may possess noxious properties for dental health. Among migrants moving into the control area, those earliest to arrive in terms of age appear to develop the worst teeth, those most recently, the best teeth, age for age.

Findings on the effect of trace amounts of fluoride in the drinking water of Japanese relocated from the West Coast indicate that recently erupted teeth are protected against dental decay by exposure to such water but that the protective effect is very little or entirely absent for teeth which have been present in the mouth 4 or 5 years previous to their exposure to the fluoride water.

Studies on record systems.—In conjunction with the other field investigations conducted by the division, systematic studies are being made of the problems of maintaining efficient and purposeful clinical, medical and other health records. Attention has been focused on record systems in health departments and in special hospitals and clinics.

From surveys of local health departments, it has been possible to determine more efficient methods for handling records. Proposals are being prepared for health officers indicating the essential records required in a local health department, and the procedures necessary for the installation of a record system that can be adjusted to the activity of the department.

At the request of the Louisville-Jefferson County Health Department, a survey is being conducted of the department's record systems in cooperation with the Bureau of State Services. The purpose of the survey is to recommend procedures for the installation of a simplified system that will permit greater use of health department and hospital records for the benefit of the patient and the community.

The division also is conducting a survey of the record systems in Marine Hospitals at the request of the Hospital Division. Methods will be determined and procedures outlined for the development of a standard record system applicable to all general hospitals.

Morbidity reporting studies.—Field work was completed on the studies of the reporting of diseases of public health importance. The first paper on this subject, Morbidity Reporting in Local Areas—Patterns of Reporting, was completed. This paper describes the sources of reporting for each of the study areas and for a number of diseases. It also discusses variations in reporting.

In cooperation with the Division of Cancer Control of the New York State Health Department, a sample study was made of the completeness of reporting to the State Health Department of cancer cases which were treated in hospitals, tumor clinics, and laboratories. The field work in the study was completed, and the analysis of the material begun.

Professional Personnel and Facilities

Medical education.—At the request of the New York Temporary Commission on the Need for a State University, an analysis was made of the size and and distribution of medical schools in New York State, and of the size of student bodies and of faculties, residence of students and graduates of these schools. A report was prepared presenting a comparison of these findings with data on medical schools throughout the country. The report also discusses opportunities for a medical school to improve the quality of medical care.

Number and patient load of physicians in Washington, D. C.—A study was begun, at the end of the year, of the distribution of physicians in the District of Columbia and the number of patients they see in 1 week. This is the fourth of such studies in this area and the first to be made since the end of the war. It is designed to measure the changes that have taken place as an aftermath of the war and how effectively the medical needs of the population are being served by the number of physicians now in the area.

Child health services.—Cooperation with the American Academy of Pediatrics and the Children's Bureau in a Nation-wide study of child health and medical facilities and services was continued. The study constitutes a fact-finding summary of information on hospitals, physicians and dentists in private practice, official and voluntary community health services, and medical education as a basis for planning the improvement of child health services throughout the country.

The division was represented on advisory committees for the study, assigned a full-time liaison officer and other personnel to the study, and furnished equipment and other assistance. The costs of coding and tabulating the data are being carried largely through funds available from grants-in-aid from the National Institute of Health.

During the year, the field work was completed in most States and at least started in all others. By the end of the year about 30 percent of the work of coding and tabulating was completed and plans were developed for preparation of national reports.

Provision of dental care to children.—Statistical studies to obtain information on the experience of clinics in providing dental care for children were continued. Analyses were completed of data obtained in two philanthropically sponsored clinics located in New York City and Philadelphia. Over a thousand case histories were abstracted in each clinic to determine the volume of services indicated and received. In Philadelphia, a time study was made of the more frequently occurring dental procedures to determine the amount of dentists' time required for these procedures. The results of the study in Philadelphia have been published; the report of the study in New York is in press. Tabulation of similar data, both on time per operation and volume of services indicated, was made in four Michigan clinics, urban and rural.

More than half the children studied in Philadelphia and New York either failed to complete all indicated treatment or to return for reexamination and follow-up treatment. The need for services among those who returned for examination six months or a year after all accumulated defects had presumably been taken care of was found to be higher than was to be expected from general surveys based on the number of teeth attacked by decay. Average number of minutes per operation was found to be less than that in two other studies reported in the literature. The reason may lie to some extent in the differences beween private practice and practice in clinics where assistants maintain a routine, constant flow of patients.

Utilization of Services and Facilities

Group practice studies.—The study of medical group practice, initiated in the fall of 1945 to evaluate this form of medical practice, has continued. More than 80 groups have been visited over the country, and 17 of these have been studied in detail. It is expected that about 10 more groups will be intensively studied. Several papers, based on parts of the mass data already acquired, either have been published or submitted for publication. A list of medical groups in the United States in 1946, based on an extensive questionnaire survey, has been published and distributed.

Survey of Blue Cross and medical service plans.—The report on the Nation-wide survey of Blue Cross and medical service plans was completed and prepared for publication during the year. The report gives a comprehensive factual account of the two types of plans—their development, subscription rates and benefits, remuneration of hospitals and physicians, enrollment procedures, legal status, control, finances, cancellation rates, subscriber utilization of hospital and medical services, and inter-plan coordination. Certain problems confronting the plans, i. e., service versus indemnity benefits, and the coordination of hospital and medical plans, also are discussed. As of April 1, 1947, the Blue Cross plans in this country had an enrollment of 25,150,000; the medical plans, an enrollment of 4,900,000.

The main conclusions of the survey are: Blue Cross and medical service plans provide service to a sizeable part of the population. Beneficial effects could be extended and made more useful to the public in various respects—by offering a more comprehensive service, by providing benefits solely on a service basis, by furnishing care for all conditions of illness, by assuming greater responsibility for the planning of hospital and medical facilities and for the quality of service and the efficiency with which service is provided, by developing low cost ward care contracts, by giving the public a greater share in control, by developing a national pool of reserves, by closer coordination and eventual unification of hospital and medical plans, and by developing a greater degree of national coordination. Although the plans have large enrollment potentialities, they will not be able to enroll the whole population. Attention should be given to the question of how the plans might be utilized in any governmental health program.

Dental services and personnel.—In cooperation with the Committee on Economics of the American Dental Association, a study was completed on the average amount of dentist-chair time required to complete various types of dental service. This information will be useful in estimating the manpower required to meet the dental needs of the population. In cooperation with the department of orthodontics, University of Michigan, study was initiated on the prevalence and incidence of orthodontic defects in a representative population group. In addition, data were assembled on the dentist-chair time and laboratory time required to treat various types of dento-facial anomalies with the view to providing much needed information for estimating the manpower required to care for this problem in the population. Analysis also was undertaken on the number, geographic distribution and other data regarding dentists who offer orthodontic service in the United States.

Health Information

The Office of Health Information serves the information needs of the Public Health Service by planning, producing and distributing a wide range of informational material to meet requests from professional and nonprofessional groups, Service personnel, industries, the public and representatives of magazines, radio, films, advertising and the press.

Information personnel detailed to operating divisions carried the major load of division programs, reinforced by resources of the central Office of Health Information for such editorial and audio-visual services as were required. They helped integrate the diverse information activities of the division programs and the over-all program of the Service.

In connection with the Hospital Survey and Construction Act, five pamphlets and three fact sheets provided information for the general public, for communities and for professional personnel. Five exhibits were produced for meetings of health and hospital organizations, and assistance was given in the preparation of numerous speeches and magazine articles relating to the hospital survey and construction program.

In cancer control and mental hygiene, material was produced and distributed to acquaint professional organizations and citizen groups with basic information regarding these new and expanding programs.

Through its liaison representative, the Office of Health Information also participated in two joint projects with the American Cancer Society: the production of cancer diagnostic and detection films for professional audiences; distribution of prints of the American Cancer Society's film, Traitor Within. Mental hygiene materials included a leaflet to help remove the stigma from mental illness and a bibliography of audio-visual aids in this field.

For the venereal disease control program, two graphic exhibits were produced for national meetings, and duplicates of one were sent to all State health departments. A series of photographs illustrating the care of patients in rapid treatment centers was distributed to interested editors, and graphic educational material on venereal disease was developed for use by retail druggists. Promotion and distribution plans were made to increase further the wide distribution already achieved for the film, A Message to Women.

Personnel from the Tuberculosis Control Division and from the Office of Health Information cooperated with the National Tuberculosis Association in planning and launching a Nation-wide educational campaign to be sponsored by the Advertising Council, Inc. The council, a war-born group representing advertisers, agencies and media, will rally the resources of the advertising industry to promote the importance of routine admission X-rays in general hospitals. Other aids for tuberculosis control include a new leaflet on tuberculosis for the Health Education Series and narration for a film on record keeping in X-ray programs.

Information activities in industrial hygiene centered around a campaign to aid recruitment of physicians, dentists, nurses, engineers and chemists. A pamphlet, three leaflets and an exhibit suggested methods of recruiting such professional personnel and outlined the opportunities, duties, and satisfactions to be found in industrial hygiene work. An exhibit displayed at the American Medical Association conference pictured industrial hygiene progress through the years.

As a means of combating the acute shortage of public health personnel, assistance was given several recruitment programs. Nurse recruitment was promoted in radio spot announcements through the generosity of the National Association of Broadcasters. Releases were issued to newspapers and professional journals to aid in the recruitment of officers for the commissioned corps. A pamphlet entitled "The Physician in the Commissioned Corps" was prepared and distribution is planned to medical schools and other possible sources of candidates for public health posts. Releases and other informational materials were prepared to recruit trainees in health education, and a pamphlet was prepared for recruitment of sanitary engineers.

Informational activities for other programs included: Preparation of an extensive list of public health films for the United States Mission to Greece; revision of food handler's manual, Hand to Mouth, and preparation of pamphlet on stream pollution; preparation and publication of pamphlet, Free Medical Care for Merchant Seamen. Other informational activities are described in reports of the individual divisions.

General activities.—More than 31,000 written requests for health information and publications were received during the year from individuals, physicians, business firms, civic, fraternal, and other voluntary organizations, and from local, State, and Federal Government agencies. These were answered by personal replies and by distributing copies of popular articles, posters, pamphlets, films, film strips, radio scripts and transcriptions, fact sheets, speeches, periodicals, and technical papers and reports.

Health statistics, official statements, and background information on health subjects in the news were furnished daily in response to press inquiries. To meet other requests, this office also furnished background material for feature stories, radio scripts, and articles for popular and professional journals. Extensive assistance in gathering and interpreting scientific materials was given to free lance writers, newspapers, magazines, and radio stations. Women's clubs and other community groups were served in their requests for public health information, and were provided with materials for their publications and study programs.

Ten new health leaflets were written on common subjects of most frequent inquiry, leaflets on other subjects were revised and reissued. Functions of the Public Health Service were described in an exhibit, prepared for the American Public Health Association convention.

Assistance also was given to Public Health Service personnel in the editing of manuscripts for publication, and in the preparation of reports and articles. Office of Health Information personnel served on committees on public relations or recruitment for the American Social Hygiene Association, the American Public Health Association, the Group for the Advancement of Psychiatry, the American Pharmaceutical Association, the National Organization for Public Health Nursing and the American Hospital Association. Personnel of the Office of Health Information and the Communicable Disease Center, Atlanta, represented the Public Health Service on the Interdepartmental Committee on Medical Training Aids.

Information to public health personnel.—In March, this office edited and published the first issue of Public Health News. This new monthly publication for Service personnel provides an exchange of information and news emanating from component units of the Service, and is designed to assist them with intraservice informational activities for headquarters and field personnel.

Weekly issues of Public Health Reports were edited and published to provide current reports of the incidence of disease, research reports, technical papers, and articles of interest to personnel in all phases of public health work.

Office of International Health Relations

This office was established to supervise and coordinate the continuously increasing activities of the Service in the international health field and to advise the Surgeon General on international health matters. It maintains liaison with various governmental and nongovernmental agencies; represents the Service in international health conferences; directs a program of international exchange of health personnel and educational material; drafts sanitary conventions and regulations, and health reports required by international agreements; collects and distributes data relating to medical and health problems of foreign countries; supervises special health missions to foreign countries; and advises the State Department upon request regarding plans, programs, and policies in connection with the World Health Organization.

Progress Toward a World Health Organization

On July 22, 1946, when representatives of 61 nations signed the Constitution of the World Health Organization, there was also signed an arrangement establishing an Interim Commission composed of representatives of 18 nations. This commission is carrying on essential international health activities and is developing plans and proposals for the First World Health Assembly which will be convoked not later than 6 months after the Constitution of the World Health Organization has been formally accepted by 26 members of the United Nations. To date the Constitution has been accepted by 13 members of the United Nations: China, United Kingdom, Canada, Iran, New Zealand, Syria, Liberia, Ethiopia, Netherlands, Saudi

Arabia, Haiti, Turkey, and Afghanistan; and by Switzerland, Transjordan, Italy, Rumania, and Albania, among the nonmember nations.

During fiscal year 1947, the Interim Commission held three sessions: in New York City from July 19–23, 1946; in Geneva from November 4–13, 1946; and in Geneva from March 20 to April 12, 1947.

The Permanent Committee of the *Office International d'Hygiene Publique*, met in Paris from October 21–31, 1946, to implement the protocol signed on July 22, 1946, by the terms of which 60 signatories agreed that the functions of the *Office* should be transferred to the World Health Organization. The United States Representative was elected to membership on the Finance and Transfer Commission which met in Paris from February 11–14, 1947, to make the necessary arrangements relative to the transfer of its functions and separation of personnel, pension fund and separation allowances, disposal of equipment and final liquidation of the *Office*.

Other International Conferences

The Surgeon General was chairman of the United States delegation to the Twelfth Pan American Sanitary Conference which met in Caracas, Venezuela, from January 12 to 24, 1947. Among its significant accomplishments was the adoption of a resolution authorizing the reorganization of the Pan American Sanitary Bureau. An executive committee composed of representatives of seven American Republics was instructed to draft a reorganization plan.

A conference dealing with the health problems of the United States-Mexico border was held at Laredo, Tex., from June 30 to July 3, 1947.

Representation on Interdepartmental Committees

So that United States representatives on international bodies and United States officials responsible for the conduct of our foreign policy can have the best coordinated thinking of the Federal Government on problems and developments in the social field affecting the foreign policy of the United States, a Committee on International Social Policy was established. It is composed of high-ranking members of the Departments of State, Interior, Agriculture, Commerce, Labor, the Federal Security Agency and the Bureau of the Budget. Problems and developments coming out of the United States participation in international health organizations, such as the World Health Organization, and the health aspects of the activities of other international organizations are considered by a subcommittee on health consisting of a member from the Federal Security Agency and from the Departments of State, War, Navy, and Agriculture. This subcommittee on health, of which the Surgeon General is chairman as well as FSA representative, met on May 23, 1947, for the consideration of a program for the proposed public health section of the Greek assistance program.

The Public Health Service is also represented on the following committees which maintain liaison with the Committee on International Social Policy: the Inter-Agency Committee on the Food and Agriculture Organization, Federal Committee on International Statistics, and the Committee on Scientific and Cultural Cooperation.

Information and Research Section

This section has supplied information for various governmental and nongovernmental agencies and individuals on health conditions in foreign countries; world-wide distribution and prevalence of disease; number of physicians, medical schools, schools of public health and tropical medicine in various countries; immunization requirements for persons proceeding abroad. Reference files are being established on the United Nations, the specialized agencies, and nongovernmental agencies in the medical, public health, and related fields.

International Educational Programs Section

This section administers training grants in public health, and plans educational and similar programs for foreign health workers at the request of their governments or international organizations. It arranges itineraries and programs for foreign visitors interested in health, and aids educational programs in other countries.

A budget of $70,500 for fellowships was allotted to this office by the Interdepartmental Committee for Cultural and Scientific Cooperation. Fellowships were awarded to 22 medical doctors, 2 nurses, and 1 laboratory technician from the following American Republics: Argentina, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, Uruguay, and Venezuela—1 fellowship each; Bolivia, Brazil, Chile, Haiti, Mexico—2 fellowships each; Panama—3 fellowships; and Colombia—4 fellowships.

As part of the program of the United States under the Philippine Rehabilitation Act of 1946, the Public Health Service offers qualified Filipinos 1 year of training in public health methods or administration. At the close of fiscal year 1947, 19 fellowships had been awarded in 9 approved schools of public health.

As a service to the American Bureau for Medical Aid to China, 25 Chinese physicians were placed in schools, hospitals, institutions, and laboratories. A similar service was performed for the governments of Syria and India for whom 17 and 13 persons, respectively, were placed.

During the year, 162 visitors came to this office from 46 different countries and from Hawaii and Puerto Rico. Services performed for these visitors included placement in hospitals, laboratories, health departments and arrangements for observation in the various divisions of the Public Health Service.

Liberian Mission

On invitation from the Republic of Liberia, the United States Public Health Service, under authority granted the Surgeon General, established a Public Health Mission in Liberia during November 1944. It protects American personnel stationed in Liberia at Robert's Field, and aids in the promotion of a progressive health program in that country.

Malaria control work, centered primarily around the Monrovia area, has been continued and reports now show a very low incidence. The engineering section of the mission completed a topographic map of Monrovia and vicinity, made surveys for water and sewage-disposal facilities for Monrovia, and is completing the draining of major mosquito breeding areas. It has also built a diagnostic laboratory, a tropical disease and general medical clinic, an X-ray laboratory, health, education and engineering workshop, and general administrative quarters; a service compound housing automotive, carpenter and machine shops, warehouses; and malaria control, and entomological collection centers.

A school of subprofessional and allied medical arts has been organized under the United States Public Health Service medical staff, in which there are enrolled approximately 80 students. These students are to be graduated after 3 years of instruction as subprofessional doctors, dentists, nurses, and laboratory technicians.

National Office of Vital Statistics

In July 1946, by provisions of the President's Reorganization Plan No. 2, the Division of Vital Statistics of the Bureau of the Census was transferred to the United States Public Health Service and was renamed the National Office of Vital Statistics.

A complete reorganization and classification survey was undertaken during the year. The structure of the office is being defined, and descriptions of the individual positions within it are being submitted to the Civil Service Commission for approval by representatives of the Division of Personnel of the Public Health Service.

For more than 40 years, the principal functions of the division have been the definitive collection, tabulation, analysis and publication of the vital statistics of the United States and its territories. Related activities include maintenance of the birth- and death-registration areas; consultative service to the States and Territories in maintaining and improving the completeness, accuracy, tabulation and analysis of statistics of birth, death, marriage, and divorce; collaboration with other organizations in studies of vital statistics and of demographic methodology for special purposes; and collaboration with government officials and technicians of foreign countries in improving the methodology of birth and death registration and vital statistics.

Publications

Analyses made and published during the year included the annual two-volume compilation Vital Statistics of the United States, the Weekly Mortality Index, the Monthly Vital Statistics Bulletin, the monthly Current Mortality Analysis, the Monthly and Quarterly Marriage Reports, and a number of vital statistics special reports.

A special publication prepared during the year was the Summary of International Vital Statistics, 1927–44. This is the only comprehensive compilation of its kind for the period covered.

Methodological Studies

The first revision of the Manual of Uniform Definitions of Motor Vehicle Accidents was completed during the year. Originally published in 1943, the manual will be revised periodically. An annual report of motor-vehicle accident fatalities is also prepared by this office.

Developmental work on the decennial revision of the International List of Causes of Death was completed during the year. Plans were made for clearing with the interested governmental and other United States agencies, the International Statistical Classification of Diseases, Injuries, and Causes of Death proposed by the Interim Commission of the World Health Organization.

In the continued study of the problem of coding joint causes of death, 10,000 death certificates from New York and Maryland were coded in various ways in order to observe the differences in the primary cause assignments. In another phase of joint cause of death study a survey of coding procedures used in other countries was made. These studies developed recommendations to be presented to the International Conference for Revision of the International List of Causes of Death in 1948.

In preparation for revision of the standard United States certificates of birth, death, and stillbirth, an analysis was made of certificates now employed by the various States.

Studies of State marriage and divorce record legislation and procedure were conducted to provide a factual basis for planning more detailed, accurate, and comprehensive methods of data collection.

Work With the States

In April, the Annual Work Conference for State Registrars of Vital Statistics met in Washington and was followed by the second postwar meeting of the American Association of Registration Executives.

The Council on Vital Records and Vital Statistics also was active during the year. The council was founded with the endorsement of the Association of State and Territorial Health Officers as an interim organization for the wartime period when meetings of the larger work conference and AARE were suspended. It now seems likely to be continued indefinitely as a pilot organization in the development and promotion of standards for vital records and vital statistics. Particularly active during the past year have been its committees on office methodologies, special registration problems, and standard certificates and definitions.

Direct assistance in training State personnel was given in connection with microfilming copies of certificates for national office use, and in statistical coding of the cause of death. Assistance was also given in establishment and revision of machine processing of statistics, in analyses of office methods, in revision of filing and indexing systems, and in development of legislation.

Members of the staff assisted two States in installing and observing the effects of new registration methods which were designed to secure more extensive parental participation in birth registration.

Statistical analyses of the effectiveness of the universal birth query were made in a dozen States.

The work for the improvement of Indian registration was continued. An educational motion picture directed at the Navajos was made, and other educational activities were planned and conducted in cooperation with the Office of Indian Affairs.

Studies of the demand for and availability of small area statistics were conducted in collaboration with State and local officials.

Training materials were prepared, and lectures and experimental training courses in vital statistics were given. This work was carried out in cooperation with State and Federal public health officials for the purpose of strengthening curricular treatment of vital statistics in nursing and medical schools.

International Cooperation

This office conducts a part of the program of the Department of State for cooperation with American Republics. During the year particular emphasis was placed on collaboration in preparation for the 1950 census of the Americas.

The vital statistics consulting program was begun in 1942, and since that time projects have been initiated and consultants detailed to a total of 10 Latin American countries. During the year, work in Brazil was completed; work in Paraguay was completed, except for occasional revisits; the projects in Colombia and the Dominican Republic were suspended temporarily; and new projects were instituted in Bolivia, Panama, Cuba, and Guatemala. The other two countries to which consultants have been detailed in past years are El Salvador and Haiti. A project proposal has been approved for Ecuador.

Seventeen training grants have been awarded to officials of other American Republics since the beginning of the training program. Trainees studying in the United States during the fiscal year 1947 were from Panama, Ecuador, Guatemala, Honduras, and the Dominican Republic. Training grants were awarded during the year to candidates from Bolivia, Cuba, El Salvador, and Nicaragua. Candidates trained under this program are now holding such responsible positions as director general of statistics and chief of the vital statistics division in the national ministry of health.

Special instruction or consultation in the office was provided for varying periods of time to official visitors from 13 countries.

NATIONAL INSTITUTE OF HEALTH

The United States Public Health Service facilities for the conduct of medical and scientific research are combined under the administration of the National Institute of Health. With the designation of the Research Grants Office as a Division in July 1946 and the creation of a Division of Tropical Diseases in April 1947, the Institute is now composed of the following units: National Cancer Institute, Division of Infectious Diseases, Division of Physiology, Division of Tropical Diseases, Research Grants Division, Biologics Control Laboratory, Chemistry Laboratory, Industrial Hygiene Research Laboratory, and the Pathology Laboratory. The Division of Tropical Diseases is a consolidation of activities of the former Zoology Laboratory, the Office of Malaria Investigations (previously with the Division of Infectious Diseases) and the Antimalarial Drug Testing Section (previously with the Division of Physiology), and their field stations.

National Cancer Institute

The activities of the National Cancer Institute include cancer research in Bethesda, Md., and in laboratories in San Francisco, Calif.; Boston, Mass.; and Washington, D. C. In addition, grants-in-aid are given to other institutions to support cancer research. There is provision for training of physicians in the diagnosis and treatment of cancer, loans of radium to hospitals, cancer education, and cooperation in the work of the tumor clinic in the United States Marine Hospital in Baltmore.

National Advisory Cancer Council

The National Advisory Cancer Council held three meetings during the year and committees of the council met as needed. A national conference on gastric cancer, held in cooperation with the University of Chicago Medical School, was the third such conference held since the creation of the National Cancer Institute in 1937. A meeting of deans and educators was held in the institute to discuss problems of education of undergraduate medical students. Two meetings of planning committees, appointed by the council, were held in the last months of the year to discuss future plans and activities of the National Cancer Institute.

Grants-in-aid

As a result of the greatly expanded funds available for support of grants-in-aid for cancer research, there was a sizable increase of applications. The council considered 121 and recommended 96. The number of grants active on July 1, 1946, was 23; grants paid and active June 30, 1947—31; approved and awaiting payment, June 30, 1947—63. In the past year 51 grants were paid to 28 institutions distributed in 13 States, the total reaching $469,634.50.

Radium Loans

The 46 loans of radium in effect July 1, 1946, were continued and 3 new loans were made. Hospitals having these loans reported that over 2,000 patients had the benefit of treatment with Government radium.

Training in the Diagnosis and Treatment of Cancer

Interest in clinical training in the diagnosis and treatment of cancer increased after the close of the war. There were 26 trainees on duty on July 1, 1946, and 43 additional trainees were appointed during the year. Seventeen traineeships were completed during the year and 52 trainees were on duty on June 30, 1947.

Tumor Clinic, United States Marine Hospital, Baltimore, Md.

Successful efforts were made during the year to stabilize the program and restore the scope existing before the war. There were 550 admissions and readmissions to the tumor clinic during the year.

Publications

Volume 7 of the Journal of the National Cancer Institute was issued in six numbers. There were 62 articles covering 469 pages in the Journal during the year. Thirty-seven were written by staff members of the National Cancer Institute and 25 were by outside scientists.

Research

The assignment of the research projects of the Cancer Institute into sections of biology, biochemistry, biophysics, biostatistics, pathology, and endocrinology proved highly successful, and work accomplishments of the various sections included:

Biology section.—Qualitative differences between the growth of a sarcoma and carcinoma in mice were established. Studies in the field of induced tumors showed that castration and sex hormones exert a pronounced influence upon the induction of a tumor which is not restricted to the reproductive organs or endocrine glands. A comprehensive survey of the gastric cancer literature was brought to completion and published. The transmissible agents involved in the occurrence of spontaneous mammary tumors of mice were studied.

Efforts were made to purify further the agent of chicken tumor I (Rous sarcoma virus). Melanomas growing in the tissues of mice were studied by use of the transparent-chamber technique. In general, it was shown that there was a relationship between vascular reaction and growth rate of tumors. Studies of the action of bacterial polysaccharide in producing hemorrhage and necrosis in transplanted tumors revealed a pattern of progressively sluggish circulation in the host and secondarily in the capillaries of the tumor. This led to stasis, increased permeability, and damage to the capillaries. In the genetic field it has been definitely established that genetic differences in mice have a definite effect in determining whether or not a mouse will develop a mammary tumor. It has been shown that induced pulmonary tumor development is associated with known genes of the mouse including flexed tail, shaker $\frac{1}{N}$ 2, and the lethal yellow gene. The lethal yellow gene is also influential in the development of spontaneous pulmonary tumors.

Biochemistry section.—Studies in carcinogenesis showed that molecular structure of urethane and related synthetic compounds play an important role in their carcinogenicity. A considerable number of primary liver tumors in rats have been produced by administration of dimethylaminoazobenzene. A semisynthetic medium composed of known chemical components has been devised for the growth of cells in tissue culture. Cobalt was found to inhibit tissue respiration. This inhibition was removed by the addition of histidine provided that the original inhibition had not been too extensive. Experimental evidence was accumulated to show that dehydropeptides are considered to arise by (*a*) condensation of glutamine or asparagine with amino acids, (*b*) desulfhydration of cystine peptides, and (*c*) dehydrogenation of the alpha and beta carbon atoms of amino acids in peptide linkage by molecular oxygen.

Biophysics section.—Data accumulated during the year showed impressively that the paramount biologic effect of long continued irradiation is carcinogenesis in guinea pigs, rabbits, and other small animals. Experiments were carried out on the histologic localization of radioactive elements. A technique for incorporation of photographic emulsion within the tissue, instead of the customary juxtaposition of tissue and a photographic plate, was developed. Ultra-centrifuge fractionation, bio-assay experiments with chicken tumor extract were done and it was established that the material contained virus of large size. A recording mass spectrometer was installed and will be used for nutrition studies with stable isotopes.

Chemotherapy section.—A well integrated and comprehensive program of chemotherapy was developed during the year. Over 1,200 compounds have been accumulated and 500 of these have been put through preliminary screening. To date 6, or 1 out of every 100 compounds, has furnished evidence of extensive damage or other profound effect upon the tumors which justify further study of these particular agents. Larger quantities of bacterial polysaccharide were made during the year. Physiological study of the effects of this agent on the nuclei of animal and human neoplasms and of normal tissues have shown interesting results. It was found that podophyllin produces extensive damage to sarcoma 37 when put through first screening. There were some toxic effects from crude extracts of the commercial drug, and efforts to fractionate the material were made. Collaborative work with scientists in the Lankenau Research Institute in Philadelphia, Pa., in studying the development and effect of so-called KR, a material first produced for treatment of tumors from *Trypanosoma cruzi* by Roskin and associates in Moscow, was undertaken. So far the reported results of the experiments have not been duplicated in toto. A method was found for isolating mitochondria from cells.

Pathology section.—Leukemia in inbred strains of mice has been studied, including mast cell neoplasms which may be related to leukemia in mice. It has been found that mast cells are more numerous in the spleens in certain strains of mice and that occasional neoplasms are heavily infiltrated by them. The possible transformation of a primary pulmonary tumor to a growth having the histologic characteristics of fibrosarcoma was observed. Six strains of mice of both sexes were fed aqueous olive oil emulsion containing either methyl-cholanthrene or dibenzanthracene. Some mice of all strains, except strain I, developed precancerous lesions and adenocarcinoma of the small intestines. There was a large increase in work in the tissue laboratory; 33,116 pieces of tissue were cut, representing an increase of 5,357 over the previous year.

Endocrinology section.—This is a new section and much of the year was given over to the recruitment of personnel and the completion of arrangements for the conduct of clinical studies at Gallinger Municipal Hospital and the Warwick Clinic at Garfield Hospital, both in Washington, D. C. The program of this section is being developed around (*a*) clinical studies of the endocrine aspects of cancer and (*b*) experimental studies of the hormonal factors affecting tissue growth.

Biostatistics section.—Statistical studies of morbidity and mortality from cancer were undertaken during the year. At the request of the District of Columbia Commissioner of Health, this section planned and provided supervision for a survey of the incidence of cancer in Washington and the adjacent counties of the metropolitan area. Objectives of this study were: (*a*) Determine the number and characteristics of persons with a diagnosed malignant neoplasm, and (*b*) ascertain the kind of treatment facilities available for the care of such patients. Studies were made of the probability of developing cancer, or in other words, the number per one thousand newborn babies who will develop cancer during their lifetime. Preliminary results of this investigation revealed that about one out of five newborn babies may be expected to develop cancer during its lifetime. It was found that the chances are slightly greater for females than for males. The probability of dying from cancer is less than the probability of developing the disease.

Laboratory of Oncology—University of California Medical School, San Francisco, Calif.—This is a new field unit of the National Cancer Institute, established January 15, 1947. The experimental program will include studies of (*a*) physiology of patients with neoplastic diseases, (*b*) study of electric potentials and other characteristics of neoplastic tissue, (*c*) experimental chemotherapy of human cancer, and (*d*) study of immunologic properties of factions of human tumor tissue. The laboratory is in process of equipment.

Epidemiology section, Children's Hospital, Boston, Mass.—This unit was established early in the fiscal year. Data were obtained from human cancer patients and controls in an effort to establish the factors in the life history of man which may be related to the cause and development of cancer.

Division of Infectious Diseases

The work of this division centers around research in the epidemiology, diagnosis, cause, treatment, and prevention of infectious diseases. The program develops as new problems occur, such as a newly recognized disease or the increasing incidence or importance of a recognized disease, as well as investigation of diseases not yet identified.

A large field station is maintained at Hamilton, Mont.—the Rocky Mountain Laboratory.

Rickettsial Diseases

Q fever.—Clinical, epidemiological, and laboratory studies of an outbreak that occurred at the National Institute of Health were completed. The evidence indicated an airborne spread for the infection and studies showed that *Rickettsiae burneti* are more resistant to heat, phenol, and formalin than other known rickettsiae.

Three naturally occurring outbreaks which occurred in the United States were studied. The first of these occurred in Amarillo, Tex., during March 1946 among some 60 persons who were variously employed in a freight-train crew, a stockyard, a livestock auction sales company, and in a packing house. The source of the infection was believed to be a shipment of yearling cattle from a nearby county in Texas. Cases developed among the affected groups in from 2 to 5 weeks after the indicated shipment had been handled. The second outbreak developed in August 1946 among workers of the sheep and calf killing and dressing department of a large packing house in Chicago. It was possible to establish the week when the infection occurred but not to implicate any particular lot of animals. The highest attack rates occurred among men who washed carcasses, handled viscera, and were exposed to splatter by body fluids. The third group of cases occurred endemically in Los Angeles County, Calif., in an area 10 to 15 miles in diameter, one of the most intensive dairy regions of the world. Fifteen to twenty proved cases were found to have occurred during a 6-month period, and cases still are appearing. A combined laboratory and field study of this area is being continued.

Rickettsialpox.—This new rickettsial disease was identified during study of a strange illness in New York City. Rickettsialpox is clinically characterized by an initial skin lesion, chills, fever, a varicelliform eruption, and a mild to moderately severe nonfatal course. Nine identical strains of the causative agent, which was named *Rickettsia akari*, were isolated; two from man, six from rodent mites, *Allodermanyssus sanguineus*, and one from a house mouse, *Mus musculus.* The latter is the probable reservoir for the disease. More than 200 cases of rickettsialpox have been identified from 4 boroughs of New York City and serological evidence of its existence in Newark, N. J., has been established.

Typhus fever.—In the preparation of epidemic typhus fever vaccine, it was found that egg yolk from normal or from inoculated eggs to the time of hatching contained an as yet unidentified water-soluble, ether-insoluble substance which when present during the diethyl-ether treatment of infected yolk sacs released into the solution a substance which contributed to the potency of the vaccine. This yolk substance was found also to be effective in the preparation of more potent murine typhus, Rocky Mountain spotted fever, and rickettsialpox vaccines.

Virus Diseases

Encephalitides.—Diagnostic tests employing the serum-virus neutralization test were performed on human serums for various encephalitides as follows: Choriomeningitis, 329; western equine encephalomyelitis, 224; eastern equine encephalomyelitis, 106; and St. Louis encephalitis, 255; total, 914. One hundred forty-six miscellaneous specimens were inoculated into experimental animals for the purpose of virus isolation.

Poliomyelitis.—Experimental studies aimed at altering the invasive properties of the Lansing strain of poliomyelitis are under way with somewhat encouraging results.

Influenza.—Defects of chick embryos were produced by influenza virus infections of very young embryos.

Mumps.—A chick embryo killed virus vaccine when used in an epidemic of mumps, was efficacious in controlling the epidemic.

Psittacosis-lymphogranuloma venereum group.—Psittacosis virus grown in the allantoic sac of developing chick embryos was obtained in relatively pure form and furnished material for antigenic and chemical studies of the virus. The complement-fixing antibody response was studied in a series of 21 cases of human psittacosis. English sparrows (*Passer domesticus*) were found to be susceptible to infection by psittacosis virus of pigeon origin but no natural infection was found among 103 examined.

Common cold.—Limited studies on the common cold were started in January. The unit for the studies consists of two sections, one engaged primarily in laboratory investigations and the other consisting of human volunteers in one of the local correctional institutions. The infectiousness of nasal washings from individuals suffering from the common cold was investigated in the human volunteer group. In turn nasal washings from them were inoculated into fertile eggs, and serial passages were performed. At least one agent has been isolated which probably originated from humans. This agent is being investigated as possibly one of the causes of minor upper respiratory disease in man.

Bacterial Diseases

Pneumonia.—Extensive studies indicated that the injection into mice of too much pneumococcus antigen, either polysaccharide or whole-cell vaccine, not only fails to stimulate antibody formation, but makes the animals refractory to this antigen for a long period of time.

Chemotherapy.—A number of antibiotics and heterocyclic compounds and derivatives were tested in experimental tuberculosis and influenza. Tests carried out on sexually mature mice indicated that sulfanilamide, sulfathiazole, and sulfadiazine markedly reduced the number of offspring in treated mice as compared with untreated controls. The periods of treatment ranged from 105 days to 169 days. Upon discontinuing the drug administration, the productivity of the treated group tended to return to a normal level. Penicillin not only had no retarding effect on reproductivity, but showed some enhancing influence upon treated as compared with the untreated mice.

Tularemia.—A diagnostic thermo-precipitin test similar to the Ascoli test employed in anthrax was studied and applied in tularemia investigations. The antigen obtained by boiling suspensions of infected tissue is specific and may be obtained from tissues of animals dead from tularemia and stored at 39° C. for 2 weeks.

Brucellosis.—A mouse-protection test has been devised which appears to be of value in establishing the presence or absence of protective antibodies in the serum of humans or animals exposed to *Brucella.* The test is based on the uniform susceptibility of female Swiss mice to the intraperitoneal introduction of large numbers of *Brucella.* The deaths among mice so treated were delayed and decreased when immune serum was administered simultaneously with living organisms. The results thus far obtained indicate that the test is specific. Isolation of *Brucella* from 81 miscellaneous specimens from suspected cases was undertaken. Positive results have been secured from three blood samples.

Rheumatic fever.—Clinical and laboratory experiments dealing with albumin-bacterioplasma conjugates, with particular reference to the etiology and pathogenesis of rheumatic fever, were continued. These experiments led to the identification of an enzyme the presence of which during growth of certain strains of hemolytic streptococci appears to be responsible for the development of the essential properties of such conjugates. Investigations in progress are designed (1) to correlate variations in enzyme concentration in human beings suffering hemolytic streptococcus infections with the clinical development of rheumatic manifestations and (2) to study further the pathogenetic effects of conjugates in experimental animals.

Tuberculosis.—A killed vaccine against tuberculosis prepared by ultraviolet irradiation of virulent human type tubercle bacilli was developed. This vaccine, tested in experimental animals, yielded protection of the same magnitude as does live BCG. Studies were begun on the efficiency of "Vole" bacilli as an immunizing agent. The chemotherapeutic effect of synthesized drugs for action against tuberculosis was studied during the year; three drugs showed promising results in guinea pigs. Studies indicate a variation in the antigenicity of virulent strains of tubercle bacilli; these studies were paralleled by studies of virulent strains from various geographic areas of the United States. Studies of tubercle bacilli were instituted to measure the effects of streptomycin and other antibiotics on the metabolism of these organisms. A rapid method of precise measurement of antibiotic effects in vitro has been developed.

Studies on the etiology of pulmonary calcification were continued in Iowa, Virginia, and Alabama. In certain rural areas of Iowa and Virginia, a very high incidence of pulmonary calcification of nontuberculous type has been demonstrated.

Household attack-rate studies around open cases of tuberculosis in Alabama in an area of low tuberculosis mortality were continued.

Acute diarrheal diseases.—The study of the epidemiology of the acute diarrheal diseases, particularly those caused by infections with members of the genera *Shigella* and *Salmonella*, was continued. Particular attention was given to the evaluation of the role played by domestic animals in the spread of salmonellosis. Of interest is the fact that dogs have shown a relatively high rate of infection with these organisms.

Cooperative studies with the States Relations Division, Communicable Disease Center, were continued throughout the fiscal year. Laboratory and other evidence is being collected to evaluate the effectiveness of fly control in the lowering of diarrheal disease rates. The data indicate that the over-all prevalence of shigellosis was definitely reduced in areas where control procedures were applied. These studies are being carried on in Hidalgo County, Tex., and the bacteriological findings to date have been particularly interesting. Five previously undescribed types of *Salmonella* have been isolated in the county. The types of *Shigella* conform in general to distribution found elsewhere in the United States, but three very rare types have been isolated.

Several gastro-enteritis outbreaks have been investigated; 1 involving 60 nurses was proved to be food-borne and due to 1 of the types of *Salmonella arizona.*

Funguous Diseases

Histoplasmosis.—In cooperation with other units, an intensive study of histoplasmosis was conducted in Loudoun County, Va., where four fatal human cases have been reported. Some 1,400 animals, mostly small rodents, were examined and only 1 rodent, *Mus musculus*, and 1 dog were found naturally infected with histoplasmosis. This is the tenth dog and the first rodent in which natural infection has been reported. No association between animal and human cases could be found. Some 500 persons residing in the area where recent proved *Histoplasma* infection occurred were examined by chest X-rays, skin tests, and medical histories, and to date no further cases of human infection have been found. Reported studies showed that 22 persons developed sensitivity to a histoplasmin skin test in a 6- to 9-month period, but no evidence of intervening *Histoplasma* infection could be found. Attempts to obtain a specific histoplasmin suitable for diagnostic use remained unsuccessful. Studies of the development of experimental histoplasmosis in various laboratory animals were continued.

A culture medium which permits production of the yeast-like phase of *Histoplasma* in large quantities was devised and is being used in producing an antigen for serological tests. Studies, still incomplete, are directed toward improved serological methods of diagnosis of histoplasmosis. The budding phase of growth of *Sporotrichum schenckii* was also studied in the same medium.

Miscellaneous.—A total of 272 specimens were received for diagnosis or identification.

Epidemiology Unit

Data collected at Norfolk indicate that two doses of alum-precipitated mixture of pertussis vaccine and diphtheria toxoid given to young children in 1942 and 1943 with a 4-week interval, gave far better immunity to diphtheria, as measured by the Schick test, than did two comparable doses of diphtheria toxoid alone.

Immunity was not as high in children immunized at 6 months as at 6–23 months of age. The study revealed a hitherto unrecognized factor in diphtheria immunity associated with the size of the household.

Studies on the acquisition of immunity to pertussis are being continued.

Epidemiological studies in cooperation with other units have been carried on in histoplasmosis, enteritis, and pulmonary calcification.

Laboratory Service

Numerous miscellaneous cultures submitted for identification were studied; 8,546 agglutination tests were performed.

Rocky Mountain Laboratory

Vaccines.—Rocky Mountain spotted fever vaccine, both the tick-tissue and chick-embryo types, was distributed in the amount of 747,973 ml. This is 105,087 ml. more than in 1946. Of the 1947 total, 384,881 ml. were distributed to State and local health units, 143,700 ml. to 14 Federal agencies for the immunization of Federal personnel and others under Government supervision, 197,980 ml. to physicians, and 21,412 ml. were sent to foreign countries (Colombia, Mexico, and Canada). A comparative study of immunogenic potency in guinea pigs of the two types of vaccine suggests that they are of approximately equal value. Anaphylactic reactions have been elicited in over 50 percent of the animals receiving yolk-sac vaccine, but none in those receiving the tick-tissue vaccine.

Only a limited amount of typhus vaccine was manufactured and only 23,993 ml. distributed.

Yellow fever vaccine distributed amounted to 259,490 doses; 190,000 doses were furnished to the military forces, and 40,405 doses to foreign countries (Canada, Belgium, Italy, Netherlands, Netherland East and West Indies, Portugal, Spain, Liberia, Arabia, and Venezuela). Twenty-five staff members tested 62 to 71 months after vaccination were all found to have good serum antibody titers.

Rocky Mountain spotted fever.—During the calendar year 1946, there were 563 cases of Rocky Mountain spotted fever and 109 reported deaths in 34 States. The disease was reported for the first time from 50 counties, all in the Central and Eastern States. The States of highest incidence were Virginia, North Carolina, and Maryland with 92, 66, and 58 cases, respectively. Incidence was exceptionally low in the Rocky Mountain and Pacific Coast States (particularly in the five Northwestern States) for the third consecutive year. Although more than half of the vaccine distributed is used in the Northwestern States, it is felt that vaccination alone has not been responsible for the low incidence, but that some of the many natural factors that control the prevalence of ticks and spontaneous infection in ticks have also played a part.

Infection in *Haemaphysalis leporis-palustris*, the rabbit tick, has been demonstrated in Missouri, and a strain has been recovered from a lot of ten *Dermacentor variabilis* from Carbondale, Ill. Infected *Ornithodoros parkeri*, *O. hermsi*, and *O. nicollei*, which had not had blood meals for from 3½ to 5 years, were found to be still infected and able to transmit the rickettsia by bite. In a serological analysis of serums of wild animals collected locally, those from three cottontail rabbits, two pine squirrels, and one jack rabbit showed complement-fixing antibodies for Rocky Mountain spotted fever. An attempt to infect a calf with this disease was unsuccessful.

Q fever.—A serological survey of animals in the vicinity is being made in an attempt to determine what species serve as animal reservoirs of Q fever. The only positive test thus far was from a porcupine, although evidence suggestive of its occurrence in other animals was obtained. Tests with *Rhipicephalus bursa* suggest that this Eastern Hemisphere tick is a potential vector. Experimental studies indicated that cockroaches are unlikely to be a factor in the occurrence of Q fever in animals in the laboratory. Studies of a strain of Q fever received from Morocco have indicated, immunologically, its identity with strains from other countries. *Rickettsia burneti* was found to retain its identity with strains from other countries, and to retain its infectiousness for considerable periods of time in dead ticks. Infectious tick feces stored at room temperature for from 6 to 8 years produced immunity when inoculated into guinea pigs. The rickettsia remained viable in *Ornithodoros* ticks starved for 3½ years.

Tick-borne typhus of Siberia.—Studies of four supposed strains of this disease received from Russia suggest a specific rickettsial disease closely related to epidemic typhus. Attempts to transmit the rickettsiae with *Dermacentor andersoni* and *Rhipicephalus sanguineus* were unsuccessful.

Rickettsialpox.—The tropical rat mite, *Liponyssus bacoti*, has been shown infectible with the specific rickettsia of rickettsialpox. Mice exposed to a colony of infected mites of this species became infected, but whether or not by mite bite is uncertain. Experimental studies suggest that this rickettsia does not survive in ticks. Tests using three species of ticks for transstadial and transovarial transmission, and for transmission to animals by bite gave negative results.

North Queensland tick-typhus.—Studies of this rickettsial disease in laboratory animals and serologically have confirmed the opinion expressed by others that it belongs to the Rocky Mountain spotted fever group. Transmission by native species of ticks has not been accomplished.

Other rickettsial disease studies include the relationship of Canadian vole rickettsia and the Tatlock strain isolated from guinea pigs to other pathogenic rickettsiae, and the antigenic relationships of all rickettsiae of the Rocky Mountain spotted fever group.

Tick paralysis.—Four cases (one of them fatal) were reported during the season of 1947, one each in Idaho, Washington, Montana, and Wyoming. An epidemiological study of the disease in the Northwestern States and in British Columbia was completed.

Encephalitis studies.—A State-wide serum survey of antibodies against western equine encephalomyelitis and St. Louis viruses, with serums furnished by the Montana State Department of Health, was initiated. Results to date suggest that there are many subclinical infections with the former virus, and that there are marked sectional differences in distribution. In contrast, the distribution of antibodies for the latter virus has been quite regular.

Cottontail rabbits, meadow mice, Columbian ground squirrels, goldenmantled ground squirrels, young chickens, domestic pigeons, and guinea pigs have been tested by intracutaneous or subcutaneous inoculation for susceptibility to western equine encephalomyelitis and for circulating virus in the blood stream. All these animals have virus in the blood stream at some time, but there is great variation in the titer of the virus and in its persistence.

Animal antiserums for western and eastern equine encephalomyelitis, St. Louis encephalitis, and lymphocytic choriomeningitis have been tested, after ultraviolet irradiation, by the mouse protection test against the homologous viruses. The eastern equine and St. Louis antiserums showed a regular inactivation curve; results with the other two serums were unsatisfactory.

Colorado tick fever.—This virus disease was studied in hamsters with particular reference to the inclusion bodies that have been reported in the nongranular leucocytes in this animal.

Influenza.—By means of serial passage of throat washings in embryonated hen's eggs, an attempt was made to find asymptomatic carriers of influenza virus among a stable population. The results to date are negative. Two strains of influenza A virus were isolated from patients during a local epidemic in March 1947.

Errington's disease.—This disease of muskrats, probably due to a filterable virus, was studied in muskrats and field mice.

Spontaneous virus infection in ticks.—Tests for spontaneous virus infections of ticks of two species collected in Missouri were negative.

Toxoplasmosis.—Thirty-one human serums were tested for antibody against toxoplasmosis; results were negative. Attempts are being made to improve the neutralization test and to find an animal which will produce a satisfactory antiserum for use in serological tests.

Relapsing fever.—Quantitative studies of transovarial transmission of three species of *Borrelia* in their respective *Ornithodoros* vectors suggest that these infectious agents can be perpetuated in their tick vectors by this means alone. Studies of tick-borrelia specificity are being continued with species of ticks and their associated borrelias from various countries in South, Central, and North America, the West Indies, Africa, and Asia.

Rat-bite fever.—A virus recovered from house mice collected in Ladner, British Columbia (which was received from the Provincial Laboratory at Kamloops), was identified as rat-bite fever.

Tularemia.—Incidence of this disease in the Rocky Mountain and Pacific Coast States is relatively low. Epidemiological data received emphasize the importance of tularemia as an occupational hazard to sheepshearers among whom chest involvement is frequent. Studies of the contamination of natural waters by *Pateurella tularensis* have had to be curtailed. Waters of a swampy area near May, Idaho, found contaminated in 1942 and 1943, were again found contaminated in May 1947. A local epizootic in meadow mice was observed near Hamilton, Mont., in January and February 1947; serums of horses pastured in the same area gave negative agglutination tests. The bacterium, after survival for 3½ years in starving *Ornithodoros* ticks, was found to have retained full virulence. Reports received from southwestern Arkansas suggest a considerable incidence of tick-transmitted tularemia and point to *Amblyomma americanum* as the vector.

Medical entomology and parasitology.—Studies have been continued on the taxonomy and biology of arthropod parasites of importance in relation to disease transmission, particularly of ticks and mites. During the year 15,315 specimens of arthropod parasites, including 11,844 ticks, were determined for 109 scientific institutions and research workers in various parts of the world. In response to requests for named parasite material (living and preserved), 7,131 specimens, including 6,000 ticks, were sent to research, public health and educational institutions, medical schools, and individual research workers for use in disease-transmission studies, teaching, and for deposit in reference collections. Nineteen new species of parasites were described, and paratype material deposited in appropriate institutions. Extensive and valuable additions were made to the laboratory's collections of parasites. Studies of the ectoparasites of North American animals were continued.

Rhipicephalus sanguineus, a known vector of rickettsial diseases of man and animals in other countries, and a potential vector in the United States, is now known to be present in at least 36 States.

Tick repellent and related investigations.—Over 80 synthetic organic materials were tested for toxicity and repellency to *Dermacentor andersoni* and *Amblyomma americanum*. The most promising materials were first determined under simulated natural conditions in the laboratory; during June these were tested under actual field conditions against *A. americanum* at Camp Bullis, Tex., with the cooperation of the Army. Of the materials tested, butylacetanilide appears to be the most effective, providing excellent protection for 10 days following the treatment of clothing. It is also moderately toxic to the immature ticks and is somewhat resistant to rinsing.

Rare individuals claim that ticks seldom attach to them and that those that do may die. Observations on such an individual indicated that his sweat contains a substance both toxic and repellent to ticks.

Other activities.—Routine serological and other diagnostic tests, supplying antigens and cultures, replying to numerous requests for information, literature, and materials, lending films of an educational nature, and giving informal talks were among additional activities. Seven laboratory workers from this country, India, Australia, Colombia, and the Netherlands received technical instruction at the laboratory.

Division of Physiology

The principal objectives of the research in this division are improvement in the diagnosis, treatment, and prevention of disease through study of fundamental physiological and biochemical processes. Studies on new chemotherapeutic agents were broadened, while research continued in the fields of chemotherapy of tuberculosis, surgical and burn shock, new narcotics, dental caries and related oral diseases, insecticides and rodenticides, dietary deficiency diseases, cardio-vascular diseases and metabolism.

Cardiovascular Diseases and Gerontology Section

Arrangements were completed for the expansion of research facilities in the Baltimore city hospitals. A series of studies was initiated on the physiological and biochemical aspects of cardiovascular diseases. To evaluate the relative importance of cardiac and renal factors in the genesis of edema in congestive heart failure, methods of measuring venous pressure were studied.

Kidney function work was extended to include tests on 115 males between the ages of 20 and 90 years. Inulin clearance has been determined as an index of the rate of glomerular filtration, and diodrast clearance as an indication of effective renal blood flow. Observations show that there is a gradual decrease in the effectiveness of kidney function with increasing age, although no clinical signs of kidney disease were observed in the aged subjects. Therapeutic procedures which may prove useful in arresting the observed decrease in kidney function with aging were initiated.

The acid-base balance of the blood was studied. Measurements of the pH, percent red cells, and bicarbonate content of the plasma have been completed on 100 aged males. Preliminary results indicate that with increasing age there is a slight shift in the acid-base equilibrium in the direction of a metabolic acidosis.

A summary as to the potentialities for employment of older people was prepared. Studies of sensory and intellectual capacities of these individuals are in progress, and an evaluation of learning capacities and methods of training is planned.

Experiments on the effect of vitamins of the B complex on the work output of perfused frog muscles were completed. It was shown that the addition of calcium pantothenate, thiamine hydrochloride, riboflavin, nicotinic acid amide, or pyridoxine hydrochloride to the perfusion fluid increased the work output of the treated muscle. When all five vitamins were added to the same perfusion fluid in optimal concentrations the improvement in work output was no greater than that observed when a single vitamin was administered.

Chemotherapy Section

Chemotherapy.—Toxicity of 530 drugs was determined preliminary to tests in various experimental diseases. Emphasis was placed on new types which might give leads toward a true malaria prophylactic. The Division of Tropical Diseases was furnished with 65 representative National Institute of Health drugs for tests on schistosomiasis. Fifty new compounds, alkamines derived from alkanes, aromatic and condensed aromatic rings, were furnished to the Army Medical Center for insecticidal tests. George Washington University was furnished 150 National Institute of Health compounds for antirickettsial tests. Eight new drugs were supplied to the National Cancer Institute for cancer studies. In the course of the synthesis of this large number of drugs, and the intermediates from which they are derived, fundamental contributions were made to the chemistry of acridine, phenanthridine, anthracene, dihydro- and tetrahydro-anthracene, stilbene, and styrylacrylamides.

The microanalytical laboratory, serving the National Institute of Health and the Cancer Institute, performed 2,533 analyses.

Narcotics.—A study of the reactions and chemistry of phenyldihydrothebaine, in progress since 1938, was completed. The results have an important bearing on theories concerning the structure of morphine.

In collaboration with Public Health Service hospitals at Baltimore and Lexington, an exhaustive study was made on the analgesic action and addiction liability of the German drug, amidone. By hypodermic injection, this drug is about twice as powerful as morphine but possesses definite addiction liability. It sustains completely an already established morphine addiction. It is not suited to oral administration, since there is a high incidence of nausea.

In May 1947, the new drug Metopon hydrochloride, developed by the National Research Council and the Public Health Service, was made available to the public. It is now in use by over 900 physicians for relief of pain in inoperable cancer. It is twice as effective as morphine by oral administration, causes no nausea, and does not stupefy the patient.

Dental Research Section

Studies on the effect of fluorination of water supplies on dental caries were continued at Grand Rapids, Mich. Approximately 6,000 school children were given an annual dental examination, and about 2,000 school children of Muskegon, Mich., were examined as controls. Data obtained to date give no evidence of any significant change in dental caries incidence. Bacteriological studies on about 1,000 selected Grand Rapids children and 500 Muskegon children gave no indication of significant change in the oral acidogenic flora having occurred since the fluorination of the Grand Rapids water supply.

A study on the dental aspects of the epidemiology of poliomyelitis was made at Minneapolis, Minn. The records of about 1,500 cases together with familial and nonfamilial contacts were reviewed, and complete oral examinations of selected age groups were made. This data will be published.

In cooperation with the Division of Infectious Diseases, studies on the relationship of fluoride ingestion to pulmonary calcification were started. Preliminary results suggest an increased fluoride ingestion in groups of individuals who exhibit a high prevalence of areas of pulmonary calcification. This association has held true in two separate geographical areas, and further studies of this phenomenon are in progress.

It has been observed that dental caries in rats can be inhibited by use of penicillin. Preliminary results indicate that the addition of nitrates to the rat's diet decreases the incidence of dental caries.

Studies of tooth surface structures by the use of metal-shadowed replicas have revealed about 15 separate and distinct features of tooth surfaces. These structures are being classified and studied in regard to their relationship to dental pathology. A technique was developed whereby shadowed replicas can be made of etched ground-tooth surfaces; these replicas are suitable for study by the electron microscope.

The research associate of the Research Commission of the American Dental Association continued the investigations of the oral spirochetal flora. A special medium was developed for the cultivation of the spirochetes which has permitted the employment of a precipitin test for classification of these organisms.

Pharmacology Section

Chemotherapy and biochemistry of the tubercle bacillus.—Since previous investigations have shown that mono-N-substituted derivatives of the antibacterial agent 4,4′-diaminodiphenylsulfone were superior to other types of derivatives, studies were made on the synthesis and structure of a series of 19 unsymmetrical N-alkyl, N-hydroxyalkyl and N-succinoyl derivatives of diphenyl sulfone. Two of these were selected as the most promising for chemotherapeutic testing in experimental guinea pig tuberculosis, both when used alone or in combination with streptomycin.

Studies on the synergism of streptomycin and sulfone derivatives in experimental tuberculosis were continued. Experiments with three mono derivatives of diaminodiphenylsulfone, used alone or in combination with streptomycin, demonstrated potentiation of chemotherapeutic action.

The effect of a series of sugars on the rate of growth of *Nocardia coeliaca* and on the yield of antibiotic activity was investigated. Some sugars accelerated growth but had no effect on antibiotic activity. Sucrose and trehalose appeared to influence both favorably.

Experiments were made on the acquired resistance of the tubercle bacillus to streptomycin and the response of resistant strains to other antibiotics or sulfones. By repeated passage of the human strain A27 in increasing concentrations of streptomycin, a fivefold increase in resistance has been induced. Cultivation of the human strain H37Rv from infected guinea pigs treated with ineffective doses of streptomycin has not resulted in marked increase in resistance to streptomycin in vitro.

An experiment on the efficacy of streptomycin in experimental guinea pig tuberculosis showed that intensive treatment during the later stages of infection was much more effective than early treatment in suppressing the disease even when treatment was delayed for as long as 4 weeks after infection.

Shock studies.—Study of local factors in experimental traumatic shock in mice was continued. Factors arising at the site of injury cause a fall in oxygen consumption and body temperature that does not respond to available therapy. Likewise, the diminished bleeding volume is related to such factors, for it was not possible to restore bleeding volume except when the injured tissues were ligated.

The importance of histamine in physiology and in disease has not been clearly established. Work is in progress on a colorimetric method for estimation of histamine. A procedure was developed which appears specific in body fluids, and which will detect less than 1 microgram.

Pharmacology of DDT.—Studies of blood sugar levels and the effect of intravenous glucose administration in the course of acute poisoning in rabbits showed a sharp elevation in blood sugar followed by a decline to a subnormal level during the advanced phases. In chronic poisoning there appears to be some degree of protection against liver injury.

A spectrophotometric method was worked out for the determination of DDT and its degradation product DDA in tissues and body fluids. No clear relationship was discerned between the concentration of DDT and DDA in the tissues and the concentration of DDT fed in the diet.

p,p′-Diaminodiphenyltrichloroethane (DADT).—The pharmacology and chemotherapy of this substance was studied because of its structural relationship to the insecticide DDT and to the antibacterial agent diaminodiphenylsulfone (DDS). Toxicity, absorption, and retention studies showed considerable variation in different species, though for the most part this substance appears to be less toxic than either DDT or DDS. In contrast to DDS, it had no activity in experimental pneumococcus infection in mice and little chemotherapeutic activity in experimental tuberculosis.

p-Amino salicylic acid.—In view of the recently reported favorable effects of this substance in tuberculosis, experiments were undertaken on the pharmacology and chemotherapy of this compound. Preliminary experiments in the treatment of bovine tuberculosis in rabbits indicate some chemotherapeutic activity though much lower than that of streptomycin.

Nutrition Section

Amino acids.—The influence of the so-called essential amino acids on the regeneration of erythrocytes, hemoglobin, white blood cells, and serum proteins was tested in rats. It was found that the omission of histidine or valine from the ten essential amino acids in the diet results in the most serious failure to regenerate erythrocytes and hemoglobin. In the absence of valine, a granulocytopenia occurred although folic acid was present. Arginine in the diet is not essential for the regeneration of serum protein, erythrocytes, or hemoglobin.

Vitamins and blood dyscrasias.—It has been shown that a diet containing 4 percent of casein permits the development of blood dyscrasias. Treatment of granulocytopenic animals with folic acid or with 15-unit liver extract was followed by an increase in the level of circulating leucocytes, particularly of the polymorphonuclear series. The activity of the liver extract could not be explained on the basis of its folic acid content and may have been due either to the anti-pernicious-anemia substance which it contained or to some unidentified factor. Protein or the ten "essential" amino acids have been shown to correct the dyscrasias in these animals and niacin has been shown to have therapeutic value under certain conditions.

Niacin-tryptophane relationship.—The niacin-tryptophane relationship was studied in rats and dogs. Results indicate that the conversion of tryptophane to niacin is less efficient in the dog than in the rat.

Metabolic studies with isotope-labeled niacin and tryptophane were undertaken.

It has been shown that diets containing restricted amounts of casein and deficient in niacin are almost equally deficient in methionine and tryptophane.

Microbiology.—A direct detection technique was employed to obtain several mutant strains of *E. coli.* These strains are stable and are unable to grow on the medium which supports growth of the parent strain unless additional substances are added. One of these mutant strains shows promise as an assay organism for the purine nucleus.

Diet and infection.—Studies on the influence of diet on the production of bacterial and viral antibodies and studies on the influence of vitamins and "antivitamins" and other drugs on the course of experimental infections were continued.

Ascorbic acid.—Results of study of the routes of disposal of excess ascorbic acid by the guinea pig suggest that the injected vitamin is excreted into the stomach and small intestine and is destroyed in the caecum.

Enzyme chemistry and metabolism.—This work, started at New York University, was continued in collaboration with Washington University Medical School. Purified enzymes were prepared and the metabolic effects of various enzyme systems studied. Lactic dehydrogenase was purified, and a study of aerobic phosphorylation suggesting the formation of a new labile phosphate ester produced data.

Clinical studies.—In collaboration with Tulane University School of Medicine, a study of the effect of folic acid on the anemia of premature infants was completed; folic acid was shown to be ineffective.

An evaluation of the nutritional status of school children and a study of nutritional deficiencies in pregnancy were begun.

Research Grants Division

The Research Grants Division administers the grants-in-aid program of the Public Health Service. Previous to October 1946, the division administered grants recommended by the National Advisory Health Council only. At that time, additional responsibility was assumed when the division was named to give administrative assistance to research grants programs in the specific fields of cancer and mental health as recommended by the National Advisory Cancer Council and the National Advisory Mental Health Council.

Study sections composed of consultants have been set up to provide the councils with the benefit of expert advice on the acceptability of applicants and suitability of proposed research projects coming within their respective categories. At the present time these sections are grouped as follows: Antibiotics, bacteriology, biochemistry and nutrition, cardiovascular, dental, gastric cancer, gerontology, hematology, malaria, mental health, metabolism and endocrinology, pathology, pharmacology, physiology, public health methods, radiobiology, sanitation, surgery, syphilis, tropical diseases, virus and rickettsial diseases, and tuberculosis.

During the year, 1,180 applications for grants-in-aid were received by the Research Grants Division: 933 were referred to the National Advisory Health Council, 124 to the National Advisory Cancer Council, and 123 to the National Advisory Mental Health Council.

The National Advisory Health Council met 4 times and recommended 628 applications in the field of general medical research. In the course of the year, 333 grants representing a total of $3,027,012.33 were paid to research scientists and investigators in 81 institutions located in 26 States and the District of Columbia.

The National Advisory Mental Health Council recommended 25 applications for payment in the next fiscal year which will total $253,807.

The National Mental Health Council recommended 25 applications for payment in the next fiscal year which will total $253,807.

Division of Tropical Diseases

This division was established April 9, 1947, for the purpose of coordinating and expanding research in the field of tropical medicine. The Section on Diagnosis and Prevention of Malaria (formerly the Office of Malaria Investigations) continued to occupy quarters in the University of Tennessee Medical School at Memphis, Tenn., laboratory and office space being furnished through a cooperative agreement with the university. Other stations are maintained at Lexington, Ky., Columbia, S. C., Milledgeville, Ga., Seagoville, Tex., the Canal Zone, and Guatemala, Central America.

Section on Diagnosis and Prevention of Malaria

A substance capable of inhibiting the avian malaria parasite, *Plasmodium gallinaceum*, was obtained by extracting in physiologic saline solution the splenic pulp of several species of animals. Efforts are being made to isolate the active inhibiting principle in splenic tissue.

With the object of modifying the activity of the parasite, *P. gallinaceum* was successfully transmitted to chicks through the mosquito, *Anopheles quadrimaculatus*, this being the first reported instance of transmission of any species of bird malaria by an anopheline mosquito. Chicks have been infected through the bite of infected *A. quadrimaculatus* and by inoculation of triturated mosquitoes.

Various other measures were employed in an effort to induce modifications in *P. gallinaceum* with the view of reducing pathogenicity without altering antigenic structure. Such measures included passage through chick embryos by blood inoculation, by the use of emulsion of brain tissue infected with exoerythrocytic forms, by sporozoite inoculations, and by the exposure of parasitized blood and parasitized mosquitoes to roentgen radiation. With the exception of the last-named method, these measures have resulted in changed patterns in malarial infection produced by various strains.

Studies on *P. falciparum* malaria in Negro patients in the Santee-Cooper area of South Carolina indicated that patients with a low-grade gametocytemia can spread the disease and that the number of gametocytes present in the blood does not necessarily indicate the capacity of the individual to infect the mosquito host. Duration of infection with this strain varies in different patients; some have shown intermittent infections for as long as 330 days. The strain appears to be effective as a therapeutic agent in neurosyphilis.

In an effort to overcome the natural immunity of Negroes to *P. vivax*, 2 individuals were subjected respectively to the bites of a total of 167 and 165 heavily infected mosquitoes over a period of 14 days; no infection resulted.

Studies of foreign *P. vivax* malaria in neurosyphilitics revealed that Mediterranean and Pacific strains caused similar parasitemia densities and febrile response. Such strains were found to be satisfactory in the treatment of neurosyphilis in white patients but unsatisfactory for such treatment in Negro patients. Foreign strains of *P. vivax* were studied in over 700 military patients. Most of the patients showed parasites before relapse symptoms. The parasite level at clinical relapse was significantly higher for the Mediterranean strain than for Pacific strains. About 12 percent of the patients exhibited a low-level asymptomatic parasitemia between clinical relapses and about 25 percent showed asymptomatic parasitemia after the terminal clinical relapse.

Investigation of the infectivity of *Anopheles quadrimaculatus* from patients with asymptomatic parasitemias of foreign *P. vivax* strains revealed that male gametocyte densities were lower in asymptomatic than in symptomatic carriers and were in proportion to the total parasite density. Infection rates for cases from the Mediterranean and Pacific areas were similar.

It was found that *Anopheles maculipennis freeborni* was significantly more susceptible to an established strain (St. Elizabeth) of *P. vivax* than was *A. quadrimaculatus*, both as to the percentage of mosquitoes infected and as to the intensity of the infections. These two mosquitoes are considered to be the principal vectors in the continental United States. Comparatively, *A. albimanus* was shown to be a relatively poor vector.

Section on Chemotherapy of Malaria

In connection with developmental chemotherapy, tests with 303 different drugs were carried out on chicks with blood-induced *Plasmodium gallinaceum* infections. Of these compounds, 160 showed some activity, and 109 were as effective against the erythrocytic parasites as an equivalent amount of quinine. The 8-aminoquinolines showed the greatest activity of any group of compounds; tests on 21 such compounds have been completed with quinine equivalents ranging from 0.5 through 64. The 4-aminoquinolines were not as highly active as the 8-aminoquinolines. All of the five 8-aminolipidines tested were found active with quinine equivalents of 32, 16, 16, 8, and 4, respectively.

In prophylactic tests with sporozoite-induced *P. gallinaceum* infections, experiments were carried out with 122 different drugs. Only four compounds showed any detectable prophylactic effect; one sulfa drug (SN 3517) gave complete prophylaxis while the other three compounds produced only slight prophylaxis.

Tests to determine the curative effect of pentaquine combined with quinine and other cinchona alkaloids were carried out on 23 *P. vivax* patients. Quinine alone exhibited no curative effect; pentaquine-quinine proved to be the best combination, followed by pentaquine-cinchonine, and pentaquine-cinchonidine.

Chloroquine (SN 7618) was compared with paludrine (SN 12837) as a suppressant of the Chesson strain of *P. vivax* malaria. Both prevented parasitic and clinical evidence of infection in the treated subjects. At the end of 6 months, treatment was discontinued on five patients in each category. Malaria appeared 18 to 24 days later in those who had received paludrine and 44 to 57 days later in those who had received chloroquine.

In induced infection with *P. malariae* (USPHS and Trinidad strains), chloroquine gave the best results, followed in descending order by quinacrine, quinine, and totaquine. This species responded relatively slowly to all drugs tested; under chloroquine therapy *P. vivax* disappeared from the peripheral blood faster than did *P. malariae.*

Section on Helminthic Diseases

Evidence was obtained that a domestic snail, *Pomatiopsis lapidaria,* may be susceptible to infection with *Schistosoma japonicum;* successful laboratory breeding of this snail now has made available aquaria-hatched-and-reared specimens in such numbers that an extensive study is in progress on the development of this species of schistosome in this snail. *P. lapidaria* was found to be closely related morphologically to *Oncomelania quadrasi*, the intermediate snail host of *S. japonicum* in the Philippine Islands; evidence indicates that these species probably belong in a common family. In attempts to determine whether other species of domestic snails can serve as intermediate hosts of *S. japonicum*, negative results were obtained in experiments with *Hydrobia monas*, *Littoridina monroensis*, *Lyogyrus dalli*, *Lyrodes coronatus*, *Amnicola sternsiana*, *Tropicorbis obstructus*, and *Pachychilus* sp.

Previous studies had shown that a domestic snail, *Tropicorbis havanensis*, could serve as an intermediate host of *Schistosoma mansoni.* Further experiments with other species of *Tropicorbis*, including *T. donbilli* and *T. obstructus*, gave negative results, as did exposure tests with *Planorbula armigera*, *Drepanotrema cultratum*, and *Physella* sp.

In studies on the biological factors influencing schistosome infection in various species of snails, it was found that succeeding generations of laboratory bred *A. glabratus* became increasingly difficult to infect with *S. mansoni* maintained in experimental animals. Attempts to infect *Planorbis boissyi*, the intermediate host of *S. mansoni* in Egypt, with an American strain of this schistosome met with continued failure.

Inequalities were observed in experimental infections of *S. mansoni* maintained in laboratory animals exposed to equal numbers of cercariae from different specimens of *A. glabratus.*

Section on Protozoal Diseases Other Than Malaria

Two new methods of approach to the problem of cultivating *Endamoeba histolytica* without bacteria have been developed in order that growth requirements may be studied without the complicating factors provided by a concomitant flora. One of these methods involves the use of microculture tubes which permit the observation of microisolated cysts introduced into various media. Excystation with and without bacteria was observed although rates of excystation under all conditions were very low. Multiplication of metacystic amoebae occurred in the presence of a single species of bacterium, organism *t*, but growth was not obtained in tubes lacking bacteria.

By means of another method, *E. histolytica* was grown in culture for the first time in the absence of bacteria. Such cultures were initiated with certain species of bacteria which were later eliminated through the use of penicillin. It has been necessary to substitute dead for live bacteria in the cultures in order to sustain growth; however, the dead organisms do not constitute an adequate substitute for live bacteria since only limited growth has been obtained under such conditions. One series of cultures without viable bacteria has been maintained for over 5 months.

Investigations on toxoplasmosis were inaugurated with the view of studying the cultural requirements of the organism and developing antigens for reliable diagnostic tests. A heavy visceral infection in mice was obtained by feeding infected liver and spleen; in preliminary experiments, chick embryos were infected.

Cultural studies on members of the Trypanosomidae were continued. *Trypanosoma cruzi* has been maintained continuously at both 24° and 37° C. in dialysate media without proteins and other nondialyzable substances. Attempts to cultivate *T. conorhini* and various species of *Leishmania* under these same conditions have met with failure. *T. rhodesiense* was successfully maintained on a special blood agar medium but *T. gambiense* failed to grow under these conditions.

The strain of *T. cruzi* employed by Russian investigators in the therapy of cancer was obtained from England and has been maintained in culture and in experimental animals for cooperative studies with the National Cancer Institute. New strains of the following species were also obtained from English laboratories: *T. congolense*, *T. rhodesiense*, *T. gambiense*, *T. evansi*, *T. equinum*, and *T. equiperdum*.

Section on Therapeutic and Preventive Measures

In collaboration with the Pan American Sanitary Bureau, experimental treatment of onchocerciasis was carried out on 25 volunteer patients in Guatemala; 14 were given fuadin in dosages up to 0.46 mgm. of antimony per kilogram of body weight daily for 25 doses, and 11 were treated with similar doses of tartar emetic. Results of treatment were checked by microfilarial examinations of biopsied skin sections and by changes in visual acuity before, during, and after treatment. Nodules containing adult worms were extirpated after therapy and examined grossly and microscopically. The results did not reveal any definite decrease in the numbers of microfilariae or unequivocal changes in visual acuity. However, definite degenerative changes were found in the reproductive system of female *Onchocerca volvulus* removed from patients treated with both drugs. Of patients receiving tartar emetic, three were given the drug prepared from radioactive antimony. Evidence indicated a specific uptake of this element in the adult parasites of approximately the same magnitude as that observed in *Dirofilaria immitis* in dogs treated under the same regimen.

In studies on the effect of sewage treatment processes on schistosome ova and miracidia, it was found that primary sedimentation for the usual detention periods removed the majority of the ova from raw sewage when moderate overflow rates were employed. No hatching of ova occurred in 24 hours in raw or settled sewage; however, a dilution with three parts of water permitted hatching. Most of the hatched miracidia escaped with the effluent. A considerable percentage of ova became nonviable in 2 or 3 weeks under anaerobic-sludge digestion at warm temperatures, but the ova survived this process for as long as 9 weeks at 44° to 65° F. The majority of ova in a septic tank became nonviable within 1 week and failed to hatch. On the other hand, ova hatched in a few hours after addition to activated sludge. Ova did not remain viable in drying sludge for more than 1 week at a temperature range of 85° to 90° F. However, if the moisture content was allowed to remain at 65 percent or above, approximately 3 weeks were required before ova were rendered nonviable at temperatures of 60° to 75° F. Operation of trickling filters at low rates was not found effective in the control of schistosomiasis in view of the percentage recovery of ova and the suitability of the filter as a hatching medium. With intermittent sand filtration, the ova failed to penetrate under any combination of sand sizes and loading rates. However, sand filtration did not prove to be an effective method of screening out miracidia, since relatively large numbers passed the filter bed; only with sand of the smallest size and extremely low filtration rates was reasonably effective removal obtained.

Experiments on the chemical impregnation of uniform cloth as a protection against schistosomiasis, originally inaugurated at the request of the United States Army, were completed. Cercariae of *Schistosoma mansoni* and *S. japonicum* were used and apparently reacted in the same manner. The most effective chemical was N,N-diethyllauramide, which protected mice against the penetration of cercariae through at least 144 hours of rinsing in water and afforded considerable protection even after 180 hours of rinsing. Dibutyl phthalate was somewhat less effective but provided protection after more than 96 hours of rinsing. Uniform cloth impregnated with an emulsion of the latter drug still retained its protective properties after five washings in soap and water, whereas similar cloth impregnated with N,N-diethyllauramide was less resistant to such washing. Benzyl benzoate and 1-methylbenzyl benzoate remained effective through 72 hours of rinsing.

Subsection on Physiology

In experiments on the cyanide sensitivity of 14 species of Trypanosomidae, the oxygen consumption of the culture forms of *Leishmania tropica*, *L. brasiliensis*, *L. donovani*, *Trypanosoma lewisi*, *T. cruzi*, and *T. conorhini*, and of the blood form of *T. lewisi* and *T. cruzi* was markedly inhibited by m/100 and m/1,000 cyanide. A progressively smaller inhibition of the respiration in m/3,000, m/10,000 and m/100,000 occurred with the three species of *Leishmania*. The respiration of the culture form of *T. gambiense* was moderately cyanide sensitive, as was that of the blood form of *T. congolense*. The oxygen consumption of the blood form of *T. evansi*, *T. equinum*, *T. hippicum*, *T. equiperdum*, *T. brucei*, *T. rhodesiense*, and *T. gambiense* on the other hand was not inhibited but rather stimulated by enzyme inhibiting concentrations of cyanide; the range tested was m/100 to m/1,000 for all species, and m/100 to m/100,000 for four species (*T. evansi*, *T. equinum*, *T. rhodesiense*, and *T. gambiense*). The strongest cyanide solution, m/100, led to a partial inhibition of the respiration of *T. rhodesiense;* this probably represented a lethal effect unrelated to enzyme inhibition.

The reaction to cyanide of the blood form of *T. evansi*, *T. equinum*, *T. congolense*, *T. rhodesiense*, and *T. gambiense* was not markedly changed when the coagulation of the blood was inhibited by citrate, heparin, or defibrination. Essentially identical results were also obtained when the CO_2 formed was absorbed by the KOH/KCN mixtures of Krebs or by the newer $Ca(OH)_2/Ca(CN)_2$ and KOH/KCN mixtures of Robbie.

A study of the sugar consumption under the influence of various cyanide concentrations (m/100 to m/100,000) undertaken with the blood form of *T. evansi*, *T. equinum*, *T. congolense*, *T. rhodesiense*, and *T. gambiense* showed that on the whole a fairly close correlation exists between the reaction of the respiration to the poison and the rate of sugar consumption. When the oxygen consumption was stimulated, the sugar consumption also was increased. In the case of *T. congolense*, where the respiration was strongly inhibited by m/100 and m/1,000 cyanide, a very pronounced inhibition of the sugar consumption occurred. In the range m/10,000 to m/100,000 cyanide, on the other hand, only a slight inhibition of the oxygen consumption, but a moderate stimulation of the sugar metabolism was observed.

The striking differences between various groups of trypanosomes in their reaction to cyanide are considered as conclusive evidence that different respiratory enzyme systems are operating. It is thought possible that this is one of the reasons why trypanosomes belonging to different groups react differently to many drugs.

Subsection on Immunology

Evaluation tests were carried out on antigens prepared from *E. histolytica* cultivated by varying techniques. Antigens prepared from the amoeba cultivated in dialysate media were found to have fewer anticomplementary properties and a higher antigenic potency. Attempts were made to increase the potency by varying the fluid inside and outside the dialyzing membrane, as well as by increasing the inoculum of amoebae in the culture. Such antigens, however, have shown no distinct advantages over those prepared by routine procedures. On the other hand, evidence was obtained that the length of the incubation period prior to harvesting was an important factor in influencing antigenic potency. Increase of the incubation period from 72 to 144 hours led to marked improvement in this respect.

Evidence was obtained to indicate the existence of strain specificity in antigens employed in the complement fixation test for amoebiasis. Two strains isolated during the year demonstrated distinct differences in this respect and failed to give positive complement tests on serums which were positive with other strains. These findings indicate the need for a polyvalent antigen for serological tests.

Agglutination antigens prepared from formalin-killed *Leptospira* proved to be too sensitive and too unstable for use in diagnostic tests. Antigens prepared from living cultures by differential high speed centrifugalization showed remarkable stability if stored in the refrigerator.

During the year, 2,723 serological tests were conducted on specimens submitted from 770 sources. These tests were divided as follows: Echinococcosis, 118; trypanosomiasis, 21; leishmaniasis, 20; filariasis, 65; schistosomiasis, 141; trichinosis, 324; amoebiasis, 1,566; and leptospirosis, 468. A total of 586 doses of various types of intradermal antigens was supplied mainly to Army, Navy, Veterans Administration, and United States Public Health Service hospitals. In addition to serological tests, stool and blood examinations were conducted in 524 cases during the year.

Biologics Control Laboratory

The functions of the laboratory are the control of biologic products as required by the Public Health Service Act of 1944 and research on related problems essential for properly carrying out provisions of the law.

International Standardization of Biologics

The Interim Commission of the World Health Organization appointed a committee to assume duties in connection with biological standardization formerly performed under the health section of the League of Nations. A staff member of the Biologics Control Laboratory was designated the member from the United States. One meeting was held and plans were made to expand the work in the entire field of biological standardization of drugs.

Regulations for the Control of Biologic Products

In accordance with provisions of the Public Health Service Act of July 1944 regulations for the control of biologic products were revised and were approved January 16, 1947. In their preparation valuable assistance was given by the manufacturers and competent authorities in the field. A revised dating decision also was issued effective May 15, 1947.

Minimum Requirements for Licensed Products

New or revised minimum requirements pertaining to safety, purity, and potency were issued for the following products: Tetanus antitoxin, the gas gangrene antitoxins, antimeningococcus serum, diphtheria toxoid, tetanus toxoid, rabies vaccine, bacterial vaccines with no official standard of potency, antihemophilic globulin (human), blood grouping and anti-Rh typing serums, dried fibrinogen (human), dried thrombin, immune serum globulin (human), and trivalent organic arsenicals.

Inspection of Licensed Laboratories

Each licensed laboratory in the United States, Canada, and England was inspected during the year. At these inspections methods of production and testing are reviewed, enabling those responsible for the control to be assured that acceptable procedures are being used and on occasion to suggest improved procedures.

Control of Licensed Products

Control tests.—Control tests of licensed products were made as follows:

Moisture determinations	601
Tests for sterility	2,006
Tests for potency	475
Tests for pyrogenicity	70
Tests for toxicity	554
Tests for solubility and stability	598
Special tests and miscellaneous	94
Identification of cultures	35
Passed on manufacturers' protocols	1,239
Total	5,672

Control of pyrogens.—In the performance of the pyrogen test evidence indicated that complete immobilization of the test rabbit caused marked depression of the normal temperature, which may be sufficient to mask the animal response to substances actually pyrogenic.

Preservation of standards.—A new standard diphtheria antitoxin was dried and standardized, and a new perfringens antitoxin was dried to be standardized. Reference serums for the A and B blood groups were dried and tested for distribution. A special study was begun of the preservation of BCG vaccine by drying.

Experimental syphilis.—Preliminary observations show no indication that *Treponema pallidum* is rendered resistant to arsenic by repeated treatment with subcurative doses of neoarsphenamine. The strain has been carried through 16 animal passages since 1934, during which time the animals were given 123 treatments; 3 treatments with 20 mgm. of neoarsphenamine per kilogram of body weight, and 120 treatments with 1 mgm. per kilogram.

Blood grouping and Rh typing serums.—Several laboratories have met the minimum requirements drawn up for blood grouping and Rh typing serums and have been licensed. An adequate supply of these serums was available on the market at the end of the year.

Agglutination test in brucellosis.—Serums from individuals known to have had brucellosis were shown to have substances which interfere with agglutination reactions in saline media, but when the saline medium was replaced with serum or albumin solutions agglutination occurred. This type of reaction, known also to result from sensitization to Rh antigens, may be useful in the study and diagnosis of other infectious diseases.

Rabies vaccine.—Fundamental studies were made of variations of substrains of Pasteur fixed rabies virus, and the validity of standard methods of testing rabies vaccines was established through other methods of testing. Standard rabies challenge virus was distributed to manufacturers for testing both human and veterinary vaccines.

Hemophilus pertussis.—The study of different factors which are involved in the intracerebral mouse protection test of pertussis vaccine was extended to include the weight and age of mice, the diluent for suspending the challenging culture, and the rest period when alum-precipitated vaccines are tested.

A reference vaccine has been selected and a turbidity standard has been prepared for distribution to manufacturers.

Investigations were begun on the influence of chemical and physical agents on the antigenicity and toxicity of pertussis vaccine and on mathematical methods of evaluating the results of the potency test.

Hemophilus influenzae.—A type-specific strain of *H. influenzae* which had been erroneously designated in publications as type d_2 and type g was studied immunologically and found to be type d.

The laboratory is assisting in an advisory capacity in the maintenance of the characteristics of representative strains of *H. influenzae* and *H. pertussis* at Lausanne, Switzerland. The list was compiled and cultures were deposited with the American Type Culture Collection.

Influenza virus vaccine.—As a result of extensive investigations, a new and more accurate test to measure the antigenicity of influenza virus vaccines was developed and adopted as the official standard test for determining the potency of influenza virus vaccines.

The Army requires that the influenza virus vaccines for the armed services for the coming season must contain a new influenza virus, strain FM1, isolated in the epidemic during February 1947 in place of the Weiss strain which is used in vaccines for civilian use. Egg adapted FM1 virus was supplied by the Army to the commercial laboratories and to the Biologics Control Laboratory. This virus has been partially adapted to mice and experiments are under way to test the strain for antigenicity and to perfect the potency test.

Bacillary dysentery.—A relatively large quantity of irradiated Shiga toxoid was prepared as a basis for studying means of inactivating the residual endotoxin which is unaffected by irradiation.

The comparative antigenicity of toxoids prepared by various methods has been studied further in mice and rabbits. Some of these toxoids immunize these animals, not only against Shiga toxin and Shiga infection but also to a marked degree against infection with Flexner and Sonne types of dysentery bacilli.

A study of Shiga infection and intoxication in mice has been made as a basis for the interpretation of studies on immunization and treatment.

The effect of Shiga toxin on monkeys has been studied and reported. This toxin apparently is not absorbed by the unbroken mucosa but is highly toxic when given parenterally.

Human plasma.—Increasing attention has been given to the elimination from pooled normal human plasma of the factor responsible for the development of homologous serum jaundice. Treatment of such pools of plasma by ultraviolet irradiation seems to offer a feasible method of eliminating this factor. No deleterious effect could be shown when ultraviolet irradiated plasma was subjected to electrophoretic analysis, nor in preliminary trials of such plasma administered to human subjects.

Chemistry Laboratory

The Chemistry Laboratory is concerned with research in the fields of organic and biochemistry with a view to extending scientific knowledge as related to public health. At present, the major work of the laboratory is on the structure and configuration of carbohydrates.

The laboratory cooperates with other divisions of the Institute in studies on the chemotherapy of certain tropical diseases, investigations of enzymes and nutritional factors, dental fluorosis and dental caries, and the chemical analysis of biological products.

Sugar Researches

Fundamental studies relating to the structure and configurations of the carbohydrates were continued. These studies included further work on methyl α-D-altroside and its transformations; additional studies on acetals of sugar alcohols, the separation of D-manno-D-*gala*- and D-manno-D-*talo*-heptonic lactones, and on the reaction of sugar phenylosazones with copper sulfate; synthesis of anhydrides of sugar alcohols; and completion of an investigation of the stereochemical structure of crystalline racemic arabinose.

In connection with the studies of the altrose series of sugar derivatives, methyl 2,6-anhydro-α-D-altroside was synthesized which shows a new ring structure. Four more new compounds in this series were prepared, namely, methyl 2,3,4-tribenzoyl-6-trityl-α-D-altroside, the corresponding triacetyl derivative, methyl 6-desoxy-6-iodo-α-D-altroside, and methyl 2,6-anhydro-3,4-diacetyl-α-D-altroside.

In the studies on the reaction of sugar phenylosazones with copper sulfate, new phenylosotriazoles and many new acetyl and benzoyl derivatives of the following were synthesized and studied: D-mannoheptulose, D-glucoheptose, D-galaheptose, L-fucose, L-rhamnose, melibiose, gentiobiose, maltose, and glyoxal. The structure of each phenylosotriazole was determined, mostly by the periodate oxidation method.

The studies in the synthesis of anhydrides of sugar alcohols have resulted in the discovery of new synthetic method. By means of this new procedure, it becomes possible to supply readily the rare, naturally occuring 1,5-anhydro-D-sorbitol (polygalitol) for biochemical and other investigations, since it can serve as a substitute for the time-consuming and more costly older procedure. This method has been applied successfully also to the synthesis of a variety of other sugar alcohol anhydrides with resulting similar advantages.

Other work in this field included proof that the compound named "phenylvolemosazone" by Emil Fischer and assumed to be sedoheptulose phenylosazone is β-mannohepotose phenylosazone; proof that Emil Fischer's monobenzylidene-gluco-*gulo*-heptitol (m. p. 218°) is the 3,5-benzylidene acetal; proofs of the structures of 1,3,5,7-dimethylene-perseitol, 1,3,5,7-dibenzylidene-perseitol and 2,3,4,5,-dibenzylidene-D,L–xylitol; an improved method for the preparation of the D- and L-arabinose phenylosazones yielding the pure substances that melt about 10° higher than has been reported previously; proof that racemic arabinose is β-D,L-arabinopyranose; experiments on the action of aqueous solutions of calcium hydroxide on potato starch; work on stevioside, a constituent of *Stevia rebaudinana;* completion of the research on the methylene acetals of D-talitol; work on *Sedum spectabile* and *Sedum Sieboldii;* and purification of melezitose for future use.

Other new compounds synthesized and studied included 2-tosyl-D-galactosan <1,5> β <1,6>; crystalline 2,4-benzylidenexylitol and a number of its derivatives; 2,4-methylene-D-talitol, 1,3:4,6-dimethylene-D-talitol; 2,3,4,5-dimethylene-D-talitol and 1,3:2,4:5,6-trimethylene-D-talitol; the *p*-toluenesulfonylhydrazones of D-galactose, D-mannose and L-arabinose; the tetrabenzoates of α-D, β-D-, α-D,L- and β-D,L-arabinopyranose; 1,5-anhydro-D-arabitol, its triacetate and tribenzoate; 1,5-anhydro-4-(β-D-glucopyranosyl)-D-glucitol and its heptaacetate; 1,5-anhydro-6-(β-D-glucopyranosyl)-D-glucitol and its heptaacetate; and phenyl 1-thio-β-D-gentiobioside heptaacetate.

Chemico-Bacteriologic Studies

Satisfactory culture techniques and chemical procedures were developed for a study of the oxidation of polyhydric alcohols by *Acetobacter suboxydans* and *Acetobacter xylinum* and these techniques and procedures were applied to a study of the biological oxidation of the rare, seven-carbon alcohol, volemitol, by these micro-organisms.

Enzyme Studies

A project has been initiated which has for its objective the isolation and purification of the enzyme, trehalase, from a suitable source. Preliminary experiments with yeast have been directed primarily toward the isolation from it of the rare sugar, trehalose.

Cooperative Work

Assistance was rendered to the Zoology Laboratory in connection with studies of the chemotherapy of certain parasitic diseases. In connection with a folic acid investigation in the Division of Physiology, 80 microbiologcal determinations of folic acid were made.

Studies on Fluorides in Water

The studies on fluorides in drinking water were continued. In cooperation with the Division of Physiology, 32 samples of drinking water were received from various localities for chemical analyses, including fluoride determinations.

Analytical Work

There were carried out 80 analyses of neoarsphenamine and sulfarsphenamine, 36 of dichlorophenarsine hydrochloride, 73 of oxophenarsine hydrochloride, 1 of arsphenamine, 2 of bismarsen, 9 of melarsen and 5 miscellaneous arsenicals; 58 chemical examinations of toxoids, 1 vaccine, 12 samples of bacteriologic media constituents and 7 pharmaceuticals; 32 preparations of volumetric solutions and 50 hydrogen ion standards; 44 determinations of lead in samples of lead acetate; complete analyses of 30 samples of water and 19 miscellaneous determinations.

Industrial Hygiene Research Laboratory

The work of this laboratory is based on the premise that real progress in the study of radiation effects and other health hazards depends upon basic studies of normal cell structures and metabolism, as well as fundamental research in biological chemistry and physics.

Biophysics of Macromolecules

Special use is being made of the electron microscope because it permits the direct vision of particles of molecular dimension. Direct visualization has made possible determinations of the shapes, sizes, physicochemical properties, and chemical reactions of viruses and large proteins and other molecules that are the constituents of living protoplasm.

Research leading to the preparation of purified viruses and necessary for recognizing the individual units of virus activity, continues to be essential to a developing knowlege of virus morphology. In the search for methods applicable to the analysis of purified viruses, use has been made of partition chromatography. This technique provided a rapid and sensitive way of recognizing and determining amounts of the numerous amino acids in a hydrolysate of a protein.

The ability to recognize virus particles by their characteristic sizes and shapes permits an approach to the question of how they increase and multiply. To do this it is necessary to work with viruses not isolated in pure form, but within the cells that are their hosts. Special machines having the high-speed knives required to cut the ultra-thin sections needed for this work are being developed.

It was found that shadowed replicas and freeze drying can be used to make preparations whose electron micrographs show the molecular particle arrangement in concentrated solutions of the tobacco mosaic virus protein and in films dried from such solutions. Studies are also under way on the development of a number of bacteriophages.

In cooperation with the Division of Physiology metal-shadowed collodion replicas were prepared which reveal the microstructure of the surfaces of extracted and unextracted teeth. Approximately 2,000 replicas have been examined.

Nuclear and Radiation Biology Studies

Among the fundamental researches on the biological action of radiation are the following: (1) Electrochemical methods of measuring oxygen tension, surface adsorption, and ion formation were developed; these methods will be useful in determining primary effects of radiation. (2) Study of the effect of ultraviolet radiation on the neuroblast of the grasshopper embryo growing in artificial culture medium. It was shown that the different parts of the mitotic pattern in such growing cells exhibited differential sensitivity to various wave lengths, the spindle and chromosomes showing this difference most markedly. The nature of the chemical substance affected can be postulated from the wave lengths most effective in destroying each structure. (3) Study of inactivation spectra of three *E. coli* bacteriophages for nine wave lengths of ultraviolet light. The inactivation and absorption spectra of the three bacteriophages are similar to the absorption spectra reported for nucleo proteins. (4) Effects of radiation on molecular structure, by bombarding certain organic substances (C_6H_6, CH_3 COC_2H_5, CH_3 $COCH_3$) with alpha particles from radon; results are being studied by means of mass and infrared spectrometry. (5) Neurophysiologic effects of radiation, by placing radioactive substances in juxtaposition to nerve structures and observing the effects on gross function, histological structure, action potential, and tissue respiration. (6) A tracer study of penicillin containing radioactive sulfur, in cooperation with the Venereal Disease Research Laboratory, United States Marine Hospital, Staten Island, N. Y. That radioactive sulfur is biologically incorporated into the molecule was shown by finding it in purified crystalline penicillin.

Among the radiation researches which are in the nature of background investigations may be mentioned the development of photographic emulsion techniques for the detection of alpha-particle-emitting substances in tissues. Another recent study involved a number of petroleum solvents being considered as vehicles for DDT; some of these were found to have a photo-sensitizing effect, and the action spectrum responsible for this was found to have a maximum in the region of 3300Å to 3400Å.

With the increasing amount of work in the field of radiobiology at the Institute, the need for research in the realm of health protection has been recognized. Personnel assigned to this work have the responsibility of investigating methods of protection, studying radiation reactions from the health point of view, improving and supervising storage and final disposition of radioactive substances, consultation and advice to other research workers, and the supervision of monitoring of all work in this field.

In establishing a coordinated and well organized approach which continuously will develop fundamental ideas and techniques in the physical sciences, with particular emphasis on nucleonics and radiation protection, a joint program was developed during the year between the Monsanto Chemical Co., Clinton Laboratories, Manhattan Engineer District, and the National Institute of Health. The program has been started with the establishment of a biological section in the research division at Oak Ridge. As the director of this section is a member of the staff of the Industrial Hygiene Research Laboratory, biological problems can be studied with greater facility under this joint program than would be possible by either institution alone.

Toxicology

Organic.—Investigations were carried out on the interference in physiological function produced by toxic agents.

The toxicity and narcotic action of mono-chloro-mono-bromomethane was studied and the inorganic and organic bromide level in blood, urine, and brain was determined. It was found that this compound is more toxic than the corresponding dichloromethane, and that with continued exposure there is a tendency for inorganic bromide to accumulate in the blood and, to a much smaller extent, in the brain. The organic (volatile) bromide disappears rapidly from the blood and there is no accumulation in the brain.

The effects of the chloromethane series on central nervous system, respiratory, and circulatory systems have been studied, and the findings correlated with concentration of these chemicals in blood, liver, heart, and brain. Physicochemical properties and kinetic action of the compounds are also being studied.

Studies are being continued on the mechanism of detoxication of methyl chloride, dichloroethane, and dichloropropane by certain dietary constituents, particularly the sulfur-containing amino acids.

Studies on the fundamental physiology of DDT action in insects have shown that DDT, through its stimulation of hypermotor activity, enhances both water loss and respiration, but that death is not due to exhaustion of respirable substrate.

Inorganic.—The effect of activity on the toxicity of stibine was observed in two species, and a study was made of hemoglobin crystals and casts in the renal tubules of guinea pigs. Heinz body formation due to hemolytic agents is being investigated in mice.

Studies in Physical Biochemistry

During the latter part of the year, studies were commenced in physical biochemistry. The goal of the research is to develop those phases of fundamental physical chemistry and of physical biochemistry which are a prerequisite to a deeper understanding of the functions of cells, particularly regular colloidal structures.

Cellular Metabolism Studies

Knowledge of cell function and the reaction of cells to injury involves ultimately the behavior of the intracellular enzymes responsible for metabolism. For this reason a long-range program of research in cellular metabolism and enzymology was initiated during the year. Developments to date include: (1) The action of azide and cyanide on respiration related directly to the function of iron-containing intracellular enzymes, was found to involve not only cytochrome oxidase but also cytochrome c and other substances whose nature has not been clearly established. Work has been initiated on the nature of these additional iron-containing substances. (2) The action of chlorinated hydrocarbons such as 1,2-dichloroethane was studied on tissue slices and isolated enzyme systems to determine whether or not these substances combine with sulfhydryl groups in essential enzymes. It appears that their action does not depend entirely on such combination. (3) Isolation of enzyme systems which decompose halogenated hydrocarbons in living cells was carried through the first phases of purification. (4) The nature of the enzyme systems operating in muscle during contraction were contrasted to those functioning in the resting state by the use of certain chemical inhibitors. Striking differences were noted. (5) Since many substances produce methemoglobin as a direct result of their toxic action, the factors which influence the oxidation and reduction of hemoglobin in the red blood cell were subjected to close scrutiny, especially with a view of isolating the system which maintains hemoglobin normally in the reduced state.

Respiratory Physiology Studies

Basic research on physical factors affecting biological processes has been carried on in the following studies related to respiration: (1) The effect of discontinuous exposure to high altitude on growth and development of rats, with emphasis on acclimatization, reproduction, and aging has been studied in an extensive series of tests. (2) Measurements of respiratory velocity have been compared to current clinical tests of lung function under various conditions of density and absolute pressure on normal subjects. Application to oxygen supply systems and assay of lung function are being studied. (3) The amount of water exhaled under various conditions has been estimated both by dew-point measurement and by weighing the frozen vapor. Changes occur at simulated altitude and when the subject is breathing helium-oxygen mixtures of low density. (4) The rate of transfer of radioactive krypton and other substances through living membranes is being investigated with a view of the definitive analysis of gaseous exchange during respiration. (5) New methods and instruments have been developed for the measurement of water vapor in expired air, measurement of gas volumes at extremely low pressures, and continuous sampling of expired air. (6) Spectroscopically pure horse-heart myoglobin was isolated and a survey of the absorption spectra of several of its derivatives was completed. A method for the extraction of the chromoprotein of dog muscle was found. Progress was made on the analysis of such extracts for myoglobin and hemoglobin.

Bacteriological Studies

Studies on the control of virus and bacterial diseases included methods for standardization of determination of air pollution, the metabolic effect of new antibiotics on certain microorganisms, and the testing of bacteriologically safe air conditioning.

Extensive laboratory and field studies on the heat resistance of *Bacillus anthracis* spores in liquid substrates and in hair and bristles have been completed during the year. Studies have also been conducted on the germicidal effect of methyl bromide on bacteria and bacterial spores, and on the survival of *Aerobacter cloacae*, the organism responsible for an acute respiratory illness among cotton workers.

Pathology Laboratory

The Pathology Laboratory has been reorganized to meet the needs of postwar research, and sections on human pathology, clinical pathology, experimental pathology, and degenerative diseases were added. The section on human pathology was activated to make full use of the clinical material and to provide well-rounded training for young officers and research fellows; arrangements were made with St. Elizabeths Hospital and Suburban Hospital for training in gross autopsy. The unit on neuropathology was formed, and the study of poliomyelitis was resumed in this unit, with the support of a grant from the National Foundation for Infantile Paralysis. New laboratory facilities included a photographic-autoradiographic laboratory and radioactive isotope laboratories; arrangements were completed for the installation of a clinical hematologic research laboratory at the new George Washington University Hospital.

Cooperative research has increased considerably as the result of the continuing expansion of the Institute. One member of the staff served as executive secretary for the pathology section and another for the hematology study section of the Research Grants Division. The pathology unit at Carville, La., continued research in various aspects of leprosy. Examination of stains for certification was regularly done for the Biological Stain Commission, and one member of this staff served on the board of trustees of the commission and as associate editor of their journal, Stain Technology. Diagnostic histopathologic services were furnished to Federal hospitals.

Dietary and Toxicologic Investigations

Studies on hematopoiesis.—The study on hematopoiesis in pantothenic acid deficiency was completed. The findings in this study are essentially similar to those of the folic acid and riboflavin deficiency studies.

Other studies.—Techniques for the forced feeding of animals on purified diets are being developed.

Studies on the experimental production of hepatic cirrhosis are being extended. Certain additional hepatotoxins are being used to relate damage caused by them to anatomic features of the liver. Studies of the effect of yellow phosphorus on hepatic histology were concluded. The lesions produced were cumulative and were most striking in the animals fed for the longest duration (8 months).

Cooperation was continued in a study of human hepatic cirrhosis, to determine the morphologic differences between the cirrhotic stage of toxic liver injury and Laennec type. A Nation-wide panel of 10 pathologists is studying this problem.

A study is in progress to determine the pathologic lesions produced by toxic doses of a gold sol used in the treatment of rheumatoid arthritis.

The industrial hygiene unit of the pathology laboratory aided in investigating the early pathologic changes and possible carcinogenic effect of dichloropropane. Other studies include mode of action of benzene and its degradation products on the hematopoetic system, the toxicologic effects of chlorobromomethane, and the toxicology of and the pathological changes produced by mono-chloro-mono-bromo-methane.

Investigations of the Hematology Unit

Studies in radioactive isotopes.—Radioactive isotope work was undertaken for the purpose of using tracers in studies of immunity and cellular physiology. Tracer laboratories were installed at the Department of Terrestrial Magnetism, Carnegie Institution, and at the National Institute of Health. A cooperative clinical research project was organized with George Washington University. Isotopes have been obtained from the Atomic Energy Commission and from the Carnegie Institution. Radioactive bacteria and antigens have been prepared and studies of their distribution in animals are in progress. Methods for studying the functional state of the reticuloendothelial system have been evolved using radioactive MnO_2, $CrPO_4$, and inert carbon. Studies on the site of antibody formation have been carried out in rabbits. Studies of the effect of X-ray on immunity to rabies were completed. The carcinogenic effect of neutrons is being investigated. Study of methods of autoradiography was initiated in cooperation with the Atomic Energy Commission, the Eastman Kodak Co., Ansco, Carnegie Institution, and the University of Rochester. Methods for alpha particle autohistoradiography were developed and published in cooperation with the Industrial Hygiene Research Laboratory. A photographic-radiographic laboratory was installed.

Other studies.—Studies on the role of riboflavin and of the effect on hematopoiesis were completed.

Studies in Infectious and Tropical Diseases

The following cooperative studies are in progress: A preliminary survey of cerebral pathological changes in mice due to fixed rabies virus; study of biopsy material of treated cases of onchocerciasis with special reference to the uterine contents of adult female worms present in the lesions; the histopathological effect in the skin of various animals of penetrating cercariae of schistosoma; possible specific pathologic changes induced in membranes and tissues of chick embryos by various strains of cold virus; and the relative tissue invasiveness of and histopathological changes induced by various strains of *T. cruzi.*

Studies completed include the pathological changes produced in chicks by *P. gallinaceum* (this study included the findings in both blood-inoculated and sporozoite-induced infections); the production of mumps in immune and susceptible monkeys; and pathological changes seen in the cutaneous lesions of rickettsialpox.

Histochemical Studies

A reference volume for workers in pathology and histology entitled "Histopathologic Technic" is in press.

Exhaustive studies on the preservation and staining of glycogen in tissues are in course of publication. The Bauer-Schiff reaction has been adapted to the identification of a number of pathogenic microorganisms in tissues. It proved to be an efficient screening device. The application of a periodic acid-leucofuchsin glycogen method has produced superior results in the demonstration of vascular basement membranes.

Studies in Human Pathology

The problem of topographic pathology of poliomyelitis has been reopened. Tabulation of the lesions in the medulla of 44 human brains collected over a period of approximately 10 years is complete, and the data are being prepared for publication.

Diagnostic Service

Diagnostic histopathologic services were rendered the various hospitals of the Public Health Service, Coast Guard, Bureau of Prisons, Office of Indian Affairs, Maritime Training Stations, and other Government agencies. A total of 1,754 surgical cases and 169 autopsies were examined during the year.

Scientific Services

Library

Circulation of materials increased from 31,810 in 1946 to 42,000 in 1947; 4,354 books and journals were obtained from libraries of other Government agencies to meet the widely diversified demands. Requests for photocopies of literature increased from 4,375 pages last year to 11,821 in 1947. The library accessioned 2,243 bound volumes; at present, it contains approximately 60,000 volumes.

The library participated in the Cooperative Acquisitions Project of the Library of Congress in buying foreign publications unavailable during the war. Most of the foreign periodicals that were discontinued for the duration have been regularly received during the past year.

In addition to cataloguing and classifying new books added to the library and those purchased for use in the various divisions and laboratories of the Institute, the library processed all books purchased by the following: the Division of Public Health Methods, Dental Division, Office of Personnel, Sanitary Engineering Division, and Office of International Health Relations (all in the office of the Surgeon General); the Hospital Division of the Bureau of Medical Services; and the Bureau of State Services.

Medical Arts

Exhibits prepared by the medical arts section were shown as follows: (1) Typhus vaccine, before the Association of Military Surgeons and the Southern Medical Association; (2) effect of ultraviolet radiation on bacteria, viruses, and fungi, at the annual meeting of the American Public Health Association; (3) differential characteristics of five important tropical diseases, at the American Association for the Advancement of Science; (4) histoplasmosis, (5) hormonal control of tissue growth, and (6) rickettsialpox, shown at the centennial meeting of the American Medical Association, the last named winning a certificate of merit. Other exhibits for use in the Institute and charts, graphs, and pathologic and microscopic drawings were prepared.

Editorial

Two National Institute of Health Bulletins were published—No. 188, Studies on Schistosomiasis; and No. 189, Xylidine (C,C-Dimethyl-Aniline): its toxicity and potential dangers as compared with those of aniline, etc. A review of the literature relating to affections of the respiratory tract in persons exposed to cotton dust was issued as Public Health Bulletin No. 297. Miscellaneous Publication No. 10, regulations for the sale, barter, or exchange of any virus, etc., was revised; and Dating Decision No. 10 was published as Miscellaneous

Publication No. 38. Of the papers submitted to this office for review, 278 were approved for outside publication, 32 were recommended for publication in Public Health Reports, and 2 were printed as supplements to Public Health Reports.

Translating

Beginning in December 1946, the translating unit extended its services to the recipients of United States Public Health Service grants-in-aid. Increased demands continued from all divisions and laboratories of the National Institute of Health and from the Bureau of State Services. Translations requested for 1947 reached 796 as compared with 357 for 1946; 7,869 manuscript pages in 15 languages were translated.

BUREAU OF MEDICAL SERVICES

The clinical programs and functions of the Public Health Service are almost entirely centered in and coordinated by the Bureau of Medical Services. This bureau is responsible for all foreign and insular quarantine activities; medical inspection of aliens; administration of the National Mental Health Act; medical services rendered to beneficiaries of the Service; functions to be performed by the Service in connection with health programs for Government employees; and administrative supervision of Service officers assigned to certain governmental agencies and of medical care services conducted in collaboration with other governmental agencies.

The bureau functions through an Office of the Chief, the Hospital Division, Foreign Quarantine Division, Mental Hygiene Division, and the Federal Employee Health Division. During this year the Offices of Dietetics and of Nursing, as such, were discontinued as organizational units under the chief of the bureau. These offices were made integral parts of the Hospital Division since their main functions relate to its activities. The chiefs of the nursing and dietetic services continue to serve the other divisions and activities of the Bureau, and act as advisers to the bureau chief.

Advisory Committee on Leprosy in the United States

The committee held its second meeting on December 17, 1946, in Washington, D. C., with 9 of the 10 members present. The Federal Security Administrator, the Surgeon General, the chief of the Bureau of Medical Services, and the chief of the Hospital Division participated in varying degrees in discussions of the committee. In substance, the advisory committee recommended (1) a more liberal policy of leave for patients, (2) more adequate transportation facilities for patients when given leave to visit their homes in the vicinity, (3) a more effective program for the eradication and control of leprosy in the United States, based on a public health approach which would require the establishment of diagnostic centers in States (California, Florida, Louisiana, Texas) where the disease is endemic, and perhaps treatment centers, (4) legislative provision for financial assistance to patients' families in appropriate cases, (5) increased and improved recreational facilities and vocational and occupational programs at Carville, (6) additional housekeeping quarters for married couples who are patients, (7) authorization of funds to return discharged patients to their homes, (8) utilization of medical social workers to keep contact with families of patients, and (9) preparation of a statement of Carville policies and procedures to be distributed to patients.

The several improvements recommended by the committee constitute an important program now receiving careful study, including the legislative and budgetary aspects. Satisfactory progress has been made in carrying out, wholly or in part, those recommendations which do not require additional legislation or funds.

Continuous Caudal Analgesia

Two Service officers continued instruction at University of Tennessee, College of Medicine, in use of continuous caudal analgesia. During the year they trained, 216 physicians and 33 nurses in managing the control of pain in labor. The physicians came from 34 of the United States and from the Philippine Islands, Brazil, Canada, Switzerland, the Hawaiian Islands, China, Chile, and Costa Rica. This staff of physicians, under the direction of Surgeon Robert A. Hingson and Senior Assistant Surgeon H. Charles Franklin, delivered more than 3,000 patients. Of this number, approximately 1,600 received continuous caudal analgesia. Of the remainder, a large proportion received continuous spinal, saddle block anesthesia, and various others of the regional nerve blocks.

A 3-year study in the United States Marine Hospital in Staten Island, a 3-year study in the Philadelphia Lying-In Hospital, Philadelphia, Pa., and a 1-year study in the John Gaston Hospital, Memphis, Tenn., on the influence of the various agents upon the infant mortality were summarized and presented before the American Medical Association on June 11, 1947.

Clinics were conducted in Havana, Cuba; Key West, Fla.; Birmingham, Ala.; Tupelo, Jackson, Greenwood, and Meridian, Miss.; Pine Bluff, Ark.; Paducah, Ky.; Baltimore, Md.; Detroit, Mich.; Washington, D. C.; Philadelphia, Pa.; New York City; and Rochester, N. H.

The United States Marine Hospital on Staten Island, N. Y., on September 9, 1946, gave a demonstration to 200 physicians who were attending the International Congress of Anesthesia.

Scientific papers relating to researches were published in The Military Surgeon, The Southern Surgeon, and The Journal of the American Medical Association.

Dietetics

The chief of the Dietetic Service has general supervision over dietetic operations carried on by the bureau, and has professional supervision over dietetic personnel. Consultation and advisory services in the field of dietetics are also available to the Bureau of Prisons, the Office of Indian Affairs and the Maritime Commission.

A dietetic advisory committee was established early this year. Two dietitians were appointed to this committee to serve as consultants. They conducted surveys of several of the Service hospitals.

An inspection of the dietetic services of the infirmaries for Government employees in Washington, D. C., was completed, and a project for the standardization of recipes was initiated.

During the year, 13 additional dietitian positions were approved, making a total of 88 positions. The dietetic internship being conducted at the Marine Hospital at Staten Island was approved in October 1947 by the American Dietetic Association. Twelve students have sucessfully completed this course.

Assistance and advice have been furnished to the Division of Hospital Facilities in connection with its program for dietetic guidance.

Nursing

On June 30, 1947, there were 1,424 nurse positions in the Bureau of Medical Services; 309 were commissioned officers and the remainder had professional civil-service status. The principal assignments to other than hospitals and medical relief stations of the Service were: 23 to the medical service of the Bureau of Prisons, 21 to the Foreign Quarantine Division, and 108 to the Federal Employee Health Division.

All graduate nurse positions under civil service were allocated from the subprofessional to the professional service during the fiscal year. While personnel turn-over remained high, recruitment of desirable nurses showed improvement and vacancies averaged about 4 percent.

The affiliate courses in psychiatric nursing were continued at the United States Public Health Service Hospitals at Lexington, Ky., and Fort Worth, Tex.; 85 student nurses participated.

A nurse education director was assigned to the United States Public Health Service Hospital, Fort Worth, to plan a post graduate course in psychiatric nursing. Ten nurses enrolled in the course. Two additional nurses have completed a university course in advanced administrative psychiatric nursing and have returned to the hospitals at Lexington and Fort Worth.

Seven nurses were assigned to duty overseas to assist in the medical examination of emigrants, and one was assigned to a malaria research project.

Hospital Division

The reorganization of the Hospital Division, begun in 1945, moved forward during fiscal year 1947 and resulted in a material strengthening of its system of Marine Hospitals and other medical relief stations. The provision of good medical care with a maximum of economy and efficiency was achieved despite the steadily rising cost of medical and hospital care.

At the beginning of the fiscal year there were 26 Marine Hospitals in operation. Hospitals at Louisville and Evansville were later closed because patient loads did not warrant their continued operation. Of the 24 hospitals in operation throughout the year, the majority fall in the range of 250–500 beds. Twenty-one are general hospitals; two (at Fort Stanton, N. Mex., and at Neponsit Beach, Long Island) are specialized for the treatment of tuberculosis, and one (at Carville, La.) is for study and treatment of leprosy. In addition to the Marine Hospitals, this division operates 18 dispensaries staffed by Public Health Service personnel and 96 small medical relief stations administered by private physicians.

Congress has from time to time designated certain groups as eligible to receive medical care at these hospitals and adjunct stations. Merchant seamen, the original group for whom the service was established by act of Congress in 1798, still represent the largest category of patients. Other major groups are Coast Guardsmen and their dependents, veterans (by arrangement with the Veterans Administration), and Federal employees compensation cases.

Although the reduction of the standard work week to 40 hours by action of Congress, effective in the hospitals July 1, 1946, increased the problem of maintaining service, personnel became increasingly available; and, consequently, the hospitals and other stations, as well as division headquarters, are now more nearly adequately staffed than at any time in the last several years.

To bring to the hospitals the best modern techniques of hospital administration, special training was furnished to selected personnel. Four medical officers, awarded Rockefeller Foundation fellowships, completed courses in hospital administration and have been assigned to four of the larger Marine Hospitals where they will survey the possibilities of improving administrative practices and introducing new methods.

A major concern of the division has been the problem of patients in the special hospitals—notably at Fort Stanton, for tuberculosis, and at Carville, for leprosy—where patients are frequently hospitalized for months and even for many years. Surveys have been made at these hospitals with a view to developing a relatively normal community life in which the patients can actively participate.

The ready adaptation of the Marine Hospitals to emergency service again was demonstrated during the Texas City disaster of April 16, 1947. The Galveston Marine Hospital, 14 miles from the scene of the disaster, made immediate preparations for the care of victims following the first explosion in the S. S. *Grand Camp* in Texas City harbor. The first patients were received within an hour, and within a few hours 115 disaster victims were admitted to bed care through prompt organization of all the hospital's resources. Emergency aid was also given to scores of others. At the time of the explosion, the hospital had a total of 202 beds, of which 182 were occupied. More beds were made available as convalescent patients who were able to leave the hospitals temporarily did so, and thirty-odd emergency beds were set up in a recreation building. To assist the Galveston Marine Hospital in the emergency, 7 doctors, 21 nurses, and a laboratory technician were flown in from the New Orleans and Kirkwood (Mo.) Marine Hospitals and the Public Health Service Hospital at Fort Worth.

Postgraduate Medical Education

A continuing program has gone forward in the development of postgraduate training which, with increasing activity in clinical research, is designed to give the Marine Hospitals a leading position in the fields of medicine and surgery.

Thirty-seven young physicians have been selected to begin residency training in the Marine Hospitals during the coming fiscal year—and 56 resident physicians will be taking their second, and third-year training.

For intern training, 11 of the Marine Hospitals are now approved by the Council on Medical Education of the American Medical Association. They offer both straight and rotating internships of 1 year's duration.

In those Marine Hospitals whose patient loads are not large enough or sufficiently diversified to warrant the assignment of Service medical officers as full-time specialists, the use of local consultants assures the highest quality of medical care for the patients and also keeps the regular staff of the hospital abreast of the best modern practices in special fields. Part-time consultants are also attached to the large Marine Hospitals to meet the special needs of the patients and to assist in the training programs.

Clinical Research

Throughout the history of the Service important contributions to the advancement of medical science have been made by staff officers of the Marine Hospitals. One of the most significant is the successful trial of the sulfone drugs in the treatment of leprosy (Hansen's disease), at the Carville Marine Hospital.

Since 1941, the medical staff at Carville have been carrying on systematic studies in the use of the sulfone drugs, notably promin, diasone and promizole, in the treatment of leprosy. By 1946, the number of patients discharged as arrested cases reached an all-time high, and this record is continuing. For the first time in the history of leprosy, it is now possible to bring hope to its victims. There is now hope, furthermore, that by diagnosis at an early stage and immediate treatment with the sulfones, it will be possible to arrest the disease in a comparatively short time. Within this year, the use of chaulmoogra oil, for a long time the classic treatment for leprosy throughout the world, was discontinued at the Carville Hospital.

The Carville exhibit of the new sulfone treatment was displayed at the annual meeting of the American Medical Association in June 1947, and was awarded the silver medal for excellence of presentation in the class of original research.

Other research problems which are under study in Marine Hospitals include a new method for spinal fusion in cases of ruptured intervertebral disks, nonsurgical treatment of ruptured peptic ulcers, and the clinical trial of streptomycin in various bacterial infections.

Dental Service

Though handicapped by shortages in personnel, the dental service in the Marine Hospitals and dispensaries provided dental care to more than 97,000 patients during the year. The dental officers also worked closely with the medical services in the treatment of jaw fractures and diseases of the oral cavity.

At the Baltimore Marine Hospital, the dental officers prepared a monograph on the early recognition of cancerous lesions of the mouth, throat, and face, for distribution to Public Health Service district dental officers and to local dental societies.

Physical Medicine

The development of the physical medicine program, first undertaken in the Marine Hospitals and dispensaries 2 years ago, made considerable progress. The early difficulties in recruiting properly qualified physical therapists have been considerably eased by the assignment of professional ratings to this group by the Civil Service Commission.

Four of the Marine Hospitals are affiliated with approved schools of physical therapy which send senior students to the hospitals for clinical experience, and one hospital has an affiliation with an approved school of occupational therapy.

Close liaison with the State and local vocational rehabilitation agencies is being developed so that patients will be able to draw on all available resources for retraining.

The most immediate problem in this program is the recruitment of physicians who are specialists in physical medicine or who are interested in opportunities for training in this comparatively new field.

Nursing Service

A study of nurse utilization was undertaken at the Boston Marine Hospital to determine what duties of a nonprofessional character might be assigned to personnel of more limited training. Duties are being reassigned so that the professional nurse may use her training to the fullest degree in the care of the patient.

Following the study, an interagency committee brought together by the hospital section of the Bureau of the Budget considered the use of practical nurses in ward staffing, and recommendations were drawn up for the classification, recruiting, and training of personnel for such positions.

Another project for nurse conservation was the establishment of a new housekeeping service, on an experimental basis, at the Baltimore hospital to relieve the nursing staff of housekeeping supervision.

An educational program is also being developed to provide in-service training of nurses and to encourage postgraduate work. During the past year, for example, a special consultant in ward management and supervision at Teachers College, Columbia University, conducted a series of classes on supervisory methods for a group of head nurses at the Staten Island Marine Hospital.

Dietetic Service

An orientation training period for Marine Hospital dietitians just entering the service was inaugurated at the Staten Island Marine Hospital. After completing this training, the dietitians were assigned for duty at other stations. This plan may be introduced in several of the larger hospitals during the year.

The Nation-wide increase in the cost of food posed a problem in the matter of providing nutritious and appetizing meals for the patients. Ration costs rose approximately 25 percent over the costs at the end of the last fiscal year.

Out-Patient Service

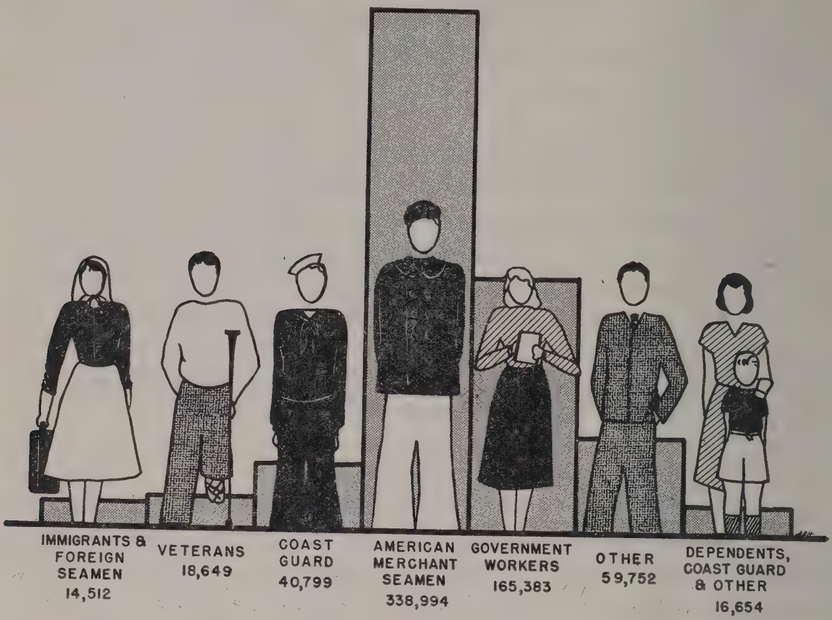
Eighteen out-patient dispensaries and 96 medical relief stations serve as adjuncts to the Marine Hospitals. When a patient admitted to treatment at any of these stations needs hospitalization, he is sent to the nearest Marine Hospital if this is feasible; or, if necessary, he may be sent to a local hospital for treatment by the Service staff.

The large out-patient dispensaries in New York, Philadelphia, Washington, and Los Angeles (including San Pedro) are staffed by Service medical and dental officers qualified in the major specialty fields. The smaller out-patient dispensaries and the medical relief stations use consultants and contract laboratory facilities.

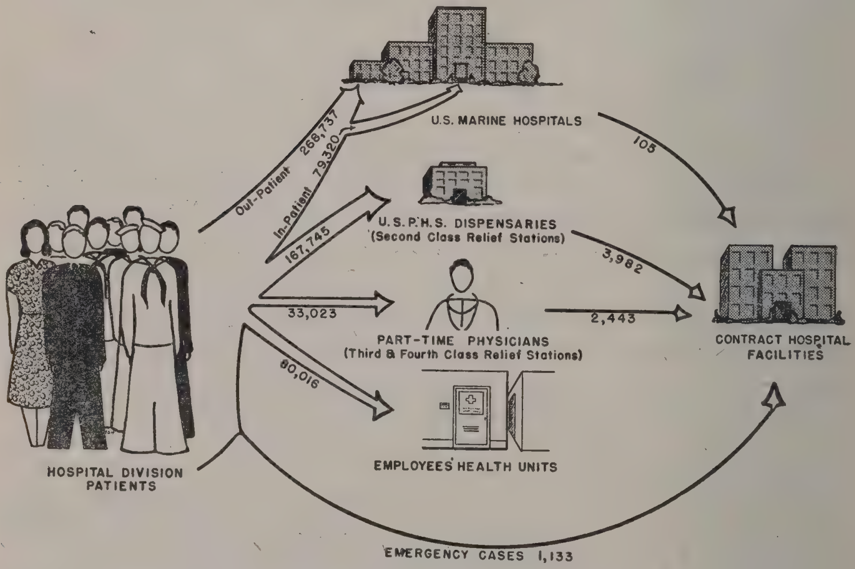
Management Activities

During the past year the Public Building Administration spent $714,000 toward relieving the backlog of work which had accumulated at the Marine Hospitals and dispensaries during the war.

DISTRIBUTION OF PATIENTS TREATED IN HOSPITAL DIVISION FACILITIES, FISCAL YEAR 1947



DISTRIBUTION OF PATIENTS BY TYPE OF FACILITY HOSPITAL DIVISION FACILITIES, FISCAL YEAR 1947


U.S. MARINE HOSPITALS
Out-Patient 268,737
In-Patient 79,320
105
U.S. P.H.S. DISPENSARIES (Second Class Relief Stations)
167,745
3,982
33,023
PART-TIME PHYSICIANS (Third & Fourth Class Relief Stations)
2,443
CONTRACT HOSPITAL FACILITIES
80,016
EMPLOYEES HEALTH UNITS
HOSPITAL DIVISION PATIENTS
EMERGENCY CASES 1,133

Close liaison with other Government departments on problems of procurement and supply has resulted in considerable savings.

A standard stock control system to meet the needs of the division and the stations was developed after comprehensive studies of procedures in both Government and private industry.

A periodic report called Monthly Survey was inaugurated in May to keep the personnel of the hospitals and dispensaries informed of developments and trends in operating costs, patient loads, and other important factors in the conduct of the stations.

Per Diem Costs of Marine Hospital Operation

The cost of operating Marine Hospitals in the fiscal year 1947 increased by $1.70 per patient day over last year's average. Measured by yearly percentage increases, however, the 25 percent rise was not as sharp as in the preceding fiscal year.

TABLE 1.—*Operating costs per patient-day in United States Marine Hospitals (general hospitals), fiscal years 1940–1947*

Fiscal year	Total	Salaries	Raw food	Other expenses
1940	$3.80	$2.56	$0.65	$0.59
1941	4.02	2.88	.67	.47
1942	4.40	3.15	.72	.53
1943	4.78	3.53	.75	.50
1944	5.14	3.80	.80	.54
1945	5.25	3.80	.82	.63
1946	6.94	5.21	.92	.81
1947	8.64	6.51	1.12	1.01

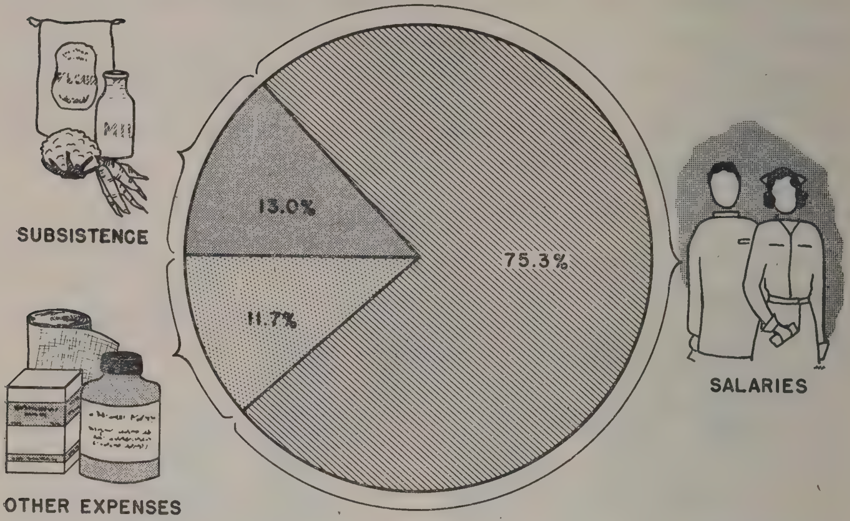
Salaries, representing three-quarters of the total operating cost, accounted for $1.30 of the total rise. Legislative salary increases, effective at the start of the year for both civil service and commissioned personnel, were responsible for part of the increase. In addition, steps were taken toward more adequate and effective staffing of the hospitals. Moreover, certain personnel furnished during the war by voluntary or philanthropic organizations had to be replaced in order to provide necessary services.

The average cost of raw food per patient day increased 20 cents over the fiscal year 1946. This average marked a greater rise than in any previous year, but still fell substantially below estimates of the Bureau of Labor Statistics retail food price index.

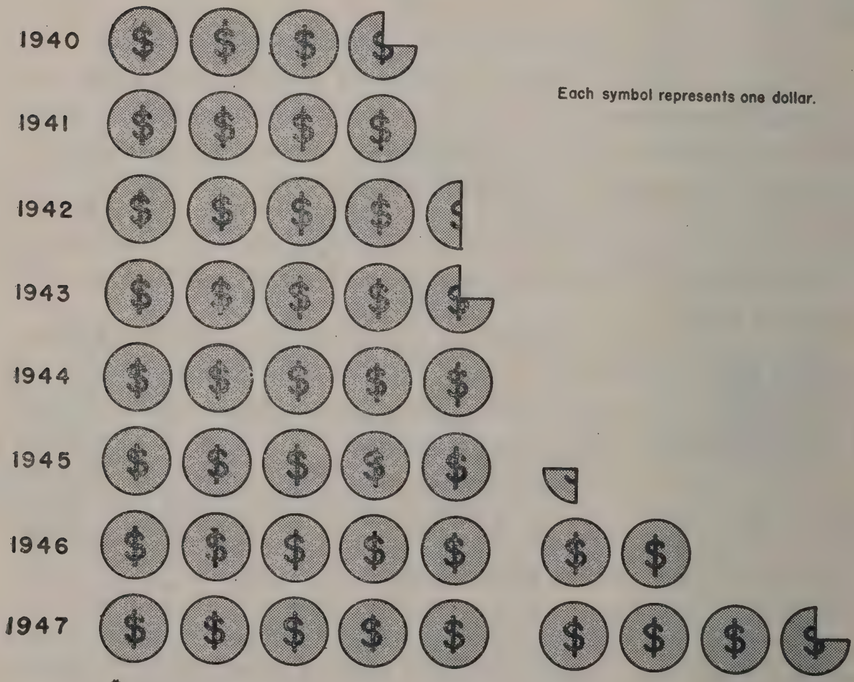
Other expenses, which comprise only expendable supplies and materials, rose 20 cents per patient day. In part, the increase stems from advances in chemotherapy which involve the use of new and expensive drugs, such as streptomycin and penicillin.

A decline of 8 percent in the number of patient days of care furnished by the Marine Hospitals exerted some influence on the increased costs of hospital operation. Certain fixed costs, particularly salaries

DISTRIBUTION OF OPERATING COST, U. S. MARINE HOSPITALS FISCAL YEAR 1947



COST PER PATIENT DAY, U. S. MARINE HOSPITALS* FISCAL YEARS 1940-1947



*General type hospitals only

of indispensable personnel, remain largely unaffected by small fluctuations in the patient load.

Statistical Analysis

Marine Hospitals.—The patient census of Marine Hospitals declined appreciably in fiscal year 1947, following a slight reduction in the previous year from the wartime peak reached in fiscal year 1945. In-patient admissions totaled 79,320, representing a decline of 18 percent from the total of fiscal year 1946, while the daily average in-patient occupancy amounted to 5,672, a drop of 8 percent from fiscal year 1946. Despite these decreases the number of in-patients admitted, as well as the average daily occupancy for fiscal year 1947, was substantially larger than in the prewar years.

The decrease in the in-patient load was due largely to a sharp reduction in the number of Coast Guard patients; the number of patients referred by the Bureau of Employees Compensation also showed a perceptible decline. On the other hand, the daily average number of American merchant seamen in the hospitals continued to increase, and the number of veterans showed a substantial rise for the second consecutive year.

The bed occupancy ratio in terms of standard bed capacity declined from 85.7 percent in fiscal year 1946 to 83.4 percent in fiscal year 1947. Although the Marine Hospital system is thus approaching the optimum operating level of 80 percent capacity, several hospitals operated throughout the year at very high levels. The daily average in-patient occupancy at Galveston, San Juan, and Seattle exceeded 100 percent of the standard bed capacities of these hospitals.

The out-patient departments in the Marine Hospitals continued to be very active. While the 801,000 out-patient treatments furnished was 15 percent less than in fiscal year 1946 and 7 percent less than the 1945 total, the volume, with the exception of these 2 years, was greater than in any previous year on record. Moreover, the volume of physical examinations performed, 108,000, although a little over 1 percent less than the previous year and 9 percent less than the peak year 1945, was substantially larger than any of the prewar years.

Medical relief stations.—Patients hospitalized by medical relief stations in contract facilities showed a noticeable decrease. On the other hand, the medical relief stations showed a record of slightly more out-patient treatments and considerably more physical examinations in fiscal year 1947 than in fiscal year 1946. The volume of out-patient treatments amounted to 632,000, and the number of physical examinations totaled 104,000.

Freedmen's Hospital

Freedmen's Hospital, founded shortly after the end of the Civil War, was originally set up as a lodging for the indigent and chronically ill among the freedmen set adrift in the war years, but it has long since become a general hospital with an annex for the treatment of tuberculosis. In close association with the College of Medicine of Howard University it has in recent years made marked advances as a teaching hospital.

At the close of the fiscal year there were 17 interns, 16 assistant residents, and 7 residents in training at the hospital. There were also six dietetic interns. The enrollment of student nurses totaled 144. Approved residency training programs are now offered in the following specialties: general surgery, internal medicine, obstetrics and gynecology, orthopedics, urology, pediatrics, and tuberculosis.

The attending staff of the hospital, numbering 106, is made up entirely of members of the medical faculty of Howard University for whom, conversely, the hospital and its patients provide the necessary clinical facilities for practical medical instruction. This close bond between the medical school and the hospital brings to the latter a staff of certified specialists in nearly all of the major fields of medicine and surgery. A consulting staff, soon to be expanded, now is made up of nine outstanding specialists from other medical schools or hospitals. There is also a courtesty staff of 97 physicians who take no regular part in the teaching program but are privileged to treat private patients in the hospital. Broad consultative services were also furnished by the Hospital Division of the Public Health Service.

The number of in-patients treated in the hospitals during the fiscal year was 8,693. The average period of hospitalization per patient was 17.1 days, virtually the same as the previous year. Hospital occupancy has ranged around 90 percent but often has exceeded 100 percent in some of the medical and surgical wards. The department of obstetrics and gynecology, one of the three over-all divisions of the hospital, reported 1,339 deliveries and 1,196 gynecological cases. The department of medicine discharged 2,918 patients during the year, and the department of surgery 2,588. In addition, more than 29,000 emergency cases were treated.

During the year a diarrhea epidemic in the hospital took the lives of 15 infants and brought into focus inadequacies of equipment, physical plant, and personnel. As a consequence, wards containing 52 maternity beds and 54 bassinets were closed for approximately 2 months and reopened with a capacity of only 16 beds and 16 bassinets.

Of the total of more than 8,000 in-patients admitted to the hospital during the year, 32 percent came from outside the District of Columbia; 71 percent were full-pay patients, 3 percent were part-pay, and 26 percent paid nothing.

Appendix tables 14 through 17 present additional information on appropriations and expenditures, on status of patients and on volume and type of service rendered by various departments.

The hospital's out-patient department conducts 32 special clinics, each scheduled regularly from 1 to 5 days every week. The number of new patients registered in these clinics during the year was 7,559, and the average number of patients treated daily was 275. A syphilology clinic is held three nights a week in addition to regular morning clinics in this field. Functioning for the clinics as well as for inpatients are the adjunct diagnostic and therapeutic services of the hospital: laboratory, radiology, photofluorography, anesthesia, and physical medicine. The pharmacy and the social service department are likewise available for clinic patients. With the aid of these services, a work of the first importance can be done in the field of preventive medicine, both for the individual patient and for public protection in the control of communicable diseases.

Mental Hygiene Division

National Mental Health Program

Although no funds were appropriated to implement the new National Mental Health Act, the division was able to lay the groundwork for its operation in the next fiscal year.

The program authorized by the National Mental Health Act (Public Law 487, 79th Cong.), which became law on July 3, 1946, has three major objectives: (1) Increased research into the problems of mental health; (2) increased training of urgently needed mental health personnel; and (3) increased support and stimulation of the efforts of the States to develop adequate mental health programs, particularly the preventive and early treatment phases.

Research.—The United States Public Health Service is authorized to make grants-in-aid for research to universities, hospitals, laboratories, other public and private institutions, and to qualified individuals. Research projects must first be recommended by the National Advisory Mental Health Council, a group of six leading authorities in the field of mental health, whose task, as stated in the Act, is "to advise, consult with, and make recommendations to, the Surgeon General on matters relating to the activities and functions of the Service in the field of mental health." During the year, the Council considered 76 applications for research grants and recommended support of 25.

The law also provides for appointment of research fellows in the various sciences which bear upon mental health problems. Fourteen research fellowships in fields related to mental health were approved under this program.

Preliminary steps were taken to implement that portion of the Act which authorizes the establishment of a National Institute of Mental Health.

Training.—The shortage of well-trained personnel in the mental health field is one of the most serious handicaps in the development of an adequate mental health program. To promote training in this field the National Mental Health Act authorizes the Public Health Service to make grants upon recommendation of the National Advisory Mental Health Council to public and other non-profit institutions for developing and improving their training facilities. The Act also authorizes training stipends to selected students in the mental health specialty fields, such as psychiatry, psychology, psychiatric social work, and psychiatric nursing. The number of trainees who may receive stipends is determined by the Council.

Following is an analysis of the number of training grants and stipends which were requested by the four mental health specialty fields, those which were recommended for support, and those which were finally approved contingent on the availability of funds.

TABLE 1

Category	Grants			Stipends		
	Requested	Recommended for approval by Council	Approved	Requested	Recommended for approval by Council	Approved
Psychiatry	53	38	17	239	152	71
Psychology	42	37	16	337	62	41
Psychiatric social work	31	18	9	328	64	40
Nursing	21	13	9	210	71	58
Total	147	106	[1] 51	1,114	349	210

[1] In addition, the American Psychological Association and the American Association of Schools of Social Work have each been given a grant to study training facilities.

During the year division personnel visited 51 universities, schools of social work, and other training institutions, at their request, to inform them of the training program authorized under the National Mental Health Act and to help them evaluate their training resources and needs.

Grants to States.—The third category of mental health activities which the Act seeks to promote is the expansion and improvement of mental health services at the State and community level. Under the Act the amount authorized to be appropriate annually for grants to States for general health purposes is increased by 10 million dollars. This sum represents the maximum amount that can be made available to States for assistance in the development and expansion of mental health activities.

Grants will be made on a matching basis through the State mental health authority, which is "the State health authority, except that, in the case of any State in which there is a single agency other than the State health authority charged with responsibility for administering the mental health program of the State, it means such other State agency." Thus far all but four of the States and Territories have designated an official State agency as the State mental health authority to administer the State's mental health program.

Staff members of the division visited all district offices and held meetings with the State mental health authorities to acquaint them with the provisions of the Act and with administrative procedures for carrying out the mental health program in each State. The State mental health authorities were also sent written materials to assist them in developing and expanding their mental health programs.

The ultimate goal of the Public Health Service in the grants-to-States program is the establishment by the States of one out-patient mental health clinic for each 100,000 of population, with provisions of service through traveling clinics to sparsely settled and rural areas. Although this goal is not immediately attainable due to the shortage of personnel, it may eventually prove to be quite conservative in terms of the need.

Ideally, such a clinic would have a minimum staff of a psychiatrist, a clinical psychologist, two psychiatric social workers, and the necessary clerical assistance; in some cases, a psychiatric nurse might be added. The clinic would have three broad functions: (1) As a diagnostic and treatment clinic, it would provide out-patient psychiatric service to emotionally disturbed children and adults not in need of hospitalization, and, most significantly, to patients in the early stage of illness when the prospect for cure is greatest; (2) as an out-post of the mental hospital, it would provide prehospitalization service, follow-up treatment of patients on furlough, and supervision of care-and-custody and boarded-out cases; (3) as a community agency for mental health education, it would disseminate information about mental health principles and practices, promote active case-finding programs, and participate in the study and control of mental diseases from an epidemiological standpoint.

Field Studies in Mental Hygiene

Field studies to evaluate mental health resources in the various States continued. These studies included surveys of the number and distribution of qualified psychiatrists within the various States, training facilities for mental health personnel, research facilities and programs, community out-patient mental health clinics, institutional facilities, State commitment laws and procedures relating to the care and treatment of the mentally ill, and possibilities for establishing or expanding preventive mental health activities. Twelve States were surveyed.

The division also continued its work of surveying public mental hospitals. Thirty-three mental institutions, including one in Puerto Rico, were surveyed or visited. Many replies were sent in response to inquiries for information regarding mental hospitals, commitment laws, hospital building plans, personnel, and nursing education.

In cooperation with the Hospital Facilities Division architectural plans for psychiatric wards in general hospitals were developed, and plans were started on a model 1,500-bed mental hospital.

Preliminary studies were begun in the field of mental health statistics in an effort to obtain accurate statistical data on the prevalence and incidence of the many types of mental illness and on other pertinent facts.

Psychiatric Service to the Juvenile Court

Personnel detailed to the psychiatric clinic of the Juvenile Court of the District of Columbia work with children and adults in an effort to diagnose and, where feasible, treat those factors in the individual and in his environment which have contributed to his difficulties and brought him into conflict with the law. They also furnish information about the causes, treatment, and prevention of juvenile delinquency to probation officers, teachers, parents, and others dealing with maladjusted children. Handicapped by lack of a regularly assigned psychiatrist during the past year, and faced with many more requests for service than it could meet, the clinic nevertheless handled 261 cases during the fiscal year.

Because of the lack of a regular staff psychiatrist, the psychologist had to give more intensified study to each case and averaged a larger number of interviews than in previous years. The psychologist held 603 interviews, 411 of them with patients and the remainder with relatives and others about patients. The psychologist also held 17 initial conferences on new cases and 59 follow-up conferences. A psychiatrist was available for only 13 interviews with patients during the year.

A total of 526 tests was given, including 299 intelligence tests of various types, 74 diagnostic and achievement tests, 20 vocational tests, and 133 projective techniques.

Sixty-five percent of the children seen by the clinic came from homes broken by death or separation.

Studies on Drug Addiction

Studies on the nature and treatment of drug addiction were continued at the United States Public Health Service Hospital, Lexington, Ky. Most important of these was the evaluation of the addiction liability in men and animals of a new synthetic drug called methadon, formerly amidone, or 10820, which was developed by the Germans during the war.

Methadon was substituted for morphine in several active morphine addicts without the development of abstinence signs. Chronic addiction to methadon was developed in post-morphine addicts; psychological, physical, and biochemical changes were similar to those found in morphine addiction. In both groups, however, abrupt withdrawal from methadon was accompanied with much less discomfort than would be expected from morphine; and the milder withdrawal distress was more deferred in onset and more prolonged in extent. The use of methadon in the treatment of the syndrome following the withdrawal of morphine is the best method now known, and it is being used routinely in the clinical withdrawal ward.

The general behavior of men addicted to methadon was similar to that seen during morphine addiction. They ceased productive activity, neglected their personal appearance, and became irritable as the experiment progressed. Methadon produced a type of sensation which was quite pleasurable to experienced morphine addicts, some of whom came to prefer it to morphine.

Methadon has all the characteristics of an addicting drug; it produces a feeling of well-being; tolerance arises from chronic administration; and a definite, although mild, abstinence syndrome develops after continued use over long periods of time. It has therefore been defined as an opiate, placing it under the Harrison Narcotic Act, which provides legal control over the manufacture, sale, and use of all types of opiates.

The Biochemical Research Laboratory has made improvements in the sensitivity of the laboratory tests for the detection in the urine of opiate and barbiturate drugs.

It was found, by use of a new Wolff-Hardy pain threshold machine, that neither the absolute level of skin temperature nor the temperature gradient was correlated with the pain threshold. A new apparatus was designed and constructed for recording reflexes in "chronic spinal" dogs addicted to drugs. Preliminary work was done in the construction of a nerve action potential apparatus.

Hospitals for Drug Addicts and Mental Patients

An increase in patients requiring treatment for drug addiction occurred in the United States Public Health Service Hospital at Lexington, Ky., and at Fort Worth, Tex.

In-service training programs have been expanded for all classes of personnel. There also has been greater participation by staff members in community mental health educational activities, through teaching in medical schools, lectures and presentations of papers to interested groups and organizations, and staff volunteer service to a mental hygiene clinic under the Fort Worth Health Department.

Lexington, Ky.—There were 2,310 admissions to this hospital during the fiscal year 1947; 1,940 male, and 370 female. The average population was 1,239. Of these, 947 were addicts; the remainder, 292, were for the most part nonaddict mental patients. The average population for the previous fiscal year was 1,152, of which 850 were addict patients and 302 nonaddict patients. An all-time population high of 1,297 was reached in May 1947, despite the fact that the hospital at Fort Worth had recently resumed the admission of narcotic patients from west of the Mississippi. (See appendix table 18.) The daily per capita cost was $3.63, compared with $3.25 for 1946.

The daily ration cost was $0.6279. A vigorous campaign against food waste resulted in an average decrease in garbage from 437 pounds per day to 122 pounds per day. Another much needed dietitian was added to the staff during the year.

A newly established personnel division completed a handbook for new employees.

The general shortage of mental health personnel, resulting in a large load of patients per physician, limited the amount of individual psychotherapy which could be done; however, several varieties of group psychotherapy were carried on with some success.

The community has given the hospital generous support. Community groups furnished recreation and entertainment, and numerous gifts of books, magazines, radios, phonographs, and phonograph records. A chapter of Alcoholics Anonymous was founded, its weekly meetings supervised by outside members.

Follow-up studies of former addict patients discharged during the 5-year period from 1941 to 1945 inclusive were conducted and revealed the following: Of a total of 2,777 living male patients discharged as recovered during that period, 16.7 percent were reported as abstinents; 51.2 percent, addiction status unknown; 32.1 percent, known to be using narcotics. Of all discharged as recovered, 4.8 percent were dead. Of the 1,435 living male patients discharged against medical advice, 1.5 percent were reported as abstinent; 65 percent, addiction status unknown; 33.5 percent, known to be using narcotics. Most of those in the "unknown" category can be considered to have attained social recovery since no report of their infraction of any laws has been received at the hospital. Most of them are discharged prisoner and probationer patients whose fingerprints are on record in the Federal Bureau of Investigation, and violations are reported to the hospital.

The women's unit continued to be overcrowded throughout the year.

Special training programs were developed for attendants, medical guard attendants, resident physicians in training, nurses, and affiliated student nurses. In addition, staff members conducted courses in abnormal psychology at the Transylvania School of the Bible and the University of Kentucky.

Fort Worth, Tex.—During the year there were 2,390 admissions, 527 readmissions, and 2,238 discharges. At the fiscal year's end there were 897 patients in residence (see appendix table 19). While this hospital has continued to function primarily as a center for the care and treatment of psychiatric patients from the United States Navy, Marine Corps, Coast Guard, Army, and Merchant Marine—also providing care and treatment for narcotic addict patients—there has been a change in the type of patients admitted during the year. As the result of demobilization of the Navy, the number of admissions of active-duty Navy psychiatric patients has declined; however, there has been an increase in the number of admissions of narcotic addicts. The Veterans Administration hospitals transferred to this hospital 250 psychiatric patients, mostly cases that did not recover quickly from their illnesses and who will probably require an indefinite period of hospitalization.

For the first time in its history, this hospital admitted women patients. Fifty-six beds have been made available thus far for the treatment of female drug addicts and female military personnel suffering from psychiatric disorders.

A contingent of eight Navy nurses trained in psychiatric nursing was assigned to duty with the medical unit of the Navy attached to the hospital. Their principal task is to supervise the wards to which Navy corpsmen are assigned for ward experience, and they also assist in the newly created women's service.

Training programs for hospital personnel were greatly expanded during the year. A nurse officer was assigned full time to conduct an intensified training program in psychiatry for nurses. Weekly staff meetings for nurses also were held to provide postgraduate in-service training and to stimulate a broadening of interests. Toward the year's end a formal 6-month course in psychiatric nursing for selected nurses was begun. The first class consisted of six nurses on duty at this hospital and four service nurses from other stations. A specially qualified nurse was assigned full time to the task of training hospital attendants. The training program for Navy corpsmen was also expanded, and includes class work as well as supervised ward duty.

The training program for resident physicians continued, with weekly clinical staff meetings, seminars in psychiatry, and monthly meetings devoted to the general field of medicine. The proceedings of the staff meetings and seminars were distributed, on request, to many stations of the Service.

The occupational therapy department has continued a very active program despite shortage of personnel. Training of affiliate student nurses, Navy hospital corpsmen, affiliate student occupational therapy aides, and more recently, staff nurses, has been an important phase of the work of this department.

The farm program was expanded during the year and continued to furnish a valuable form of occupational therapy for patients.

Another significant trend has been the participation of the hospital staff in community mental health activities. Hospital personnel volunteered their services to a mental hygiene clinic under the city health department. Staff members also taught psychiatry at Southwestern Medical Foundation, Dallas, Tex.

Foreign Quarantine Division

Incidence of Disease

Following the war there have been practically world-wide increases in the incidence of some of the pestilential diseases. This is especially true in Europe, Asia, and Africa. Cholera, virulent smallpox, and plague occurred in epidemic proportions in Eastern Asia in 1946 and 1947, plague and smallpox prevailed in Africa, including the Mediterranean area, and a high incidence of epidemic (louse-borne) typhus fever was reported in certain localities of all three continents of the Eastern Hemisphere. In England, which had been free of the disease for many years, smallpox was introduced by aircraft and ships, on 16 occasions during the year. Public Health Service officers assigned to American consulates in Europe were instructed to enforce regulations for pre-embarkation vaccination of persons coming to the United States from smallpox infected areas.

The only confirmed case of importation of quarantinable disease into this country during the year was that of a man who came by bus from Mexico to New York, dying there of a disease at first diagnosed as hemorragic bronchitis but later thought to have been smallpox which must have been in the incubation stage when the man crossed the border. This case probably was the cause of a smallpox outbreak in New York City and environs, of 12 additional cases which resulted in 2 deaths.

Trend in Work Volume

The trend of increasing volume in quarantine work indicated at close of 1946 continued through the fiscal year 1947, particularly in functions in connection with air traffic. Plane arrivals from foreign countries totaled 45,340, an increase of 9,268, or 25 percent over the preceding year. Aircraft passengers examined totaled 669,516, a 53 percent increase above the 1946 number. During the year routine inspection services were provided for seven airports not covered in 1946.

A total of 24,965 vessels was inspected as compared with 27,474 for the preceding year. Surface passengers requiring examinations receded to 556,364 from the abnormal influx of 1946, when more than 2,000,000 passengers, largely military personnel, were examined.

Aliens examined at points of entry into the United States totaled 571,077 as compared with 443,695 for the fiscal year 1946.

Detailed reports are given in tables 21 through 25 of the appendix.

Immigration Medical Work at American Consulates

Medical officers and other personnel were assigned to additional European offices of the United States Department of State, and to the consulate in Shanghai, as the program of medical examinations of visa applicants continued to expand after curtailment during the war. In Europe these examination services are provided at Paris, London, Berlin, Bremen, Frankfort, Munich, Stuttgart, Genoa, Naples, Rotterdam, and Prague.

Four additional photofluorographic units were secured, to be used in chest work in the examination of visa applicants.

Mexican Border

A total of 17,904,768 persons was inspected for quarantine and immigration purposes at the Mexican border stations, and 27,995 were vaccinated against smallpox.

At a conference of United States and Mexican health authorities, at Laredo, Tex., June 30–July 2, 1947, plans were made for improving health conditions along both sides of the border; the program will fit in closely with the disease control work of the border quarantine stations.

Personnel

A reorganization of division headquarters office was effective with the advent of the fiscal year. In addition to the Administrative Office, the following sections were established: Budget and Fiscal, Personnel, Office Services, Public Buildings Liaison, Document Preparation, Floating Equipment, and Entomological. More even distribution of work and better administration of personnel matters have been effected; more realistic control of expenditures is possible; better budget preparation and justification are in evidence; the floating equipment is being more carefully maintained and rehabilitated; and new phases of insect control on incoming airplanes are being developed through the head of the Entomological Section and his staff of assistants at key airports of entry.

During the year the division's work in the Public Health Service rehabilitation program in the Philippine Islands was transferred to the Bureau of State Services, to simplify administration. Quarantine work is now classed as one of the 10 Public Health Service projects in the Philippines.

Procedures

Entomological surveillance around the major airports of entry and in other areas resulted in some noteworthy contributions to science, including the finding of two new mosquito species, *Aedes keyensis* Buren and *Aedes nigrinotum* Buren and Strom. The former was discovered in the Florida Keys; the latter breeds in tree holes in south Florida. Several specimens of *Anopheles albimanus* Wiedemann, a dangerous vector of malaria in the Caribbean, were found in the Florida Keys, with indications of an increase in the number of this species during the year; also, a female specimen of this mosquito was captured in a light trap at the Miami station.

It is thought that this species is endemic in the Florida Keys; plans are being formulated for keeping this species under surveillance with a view to an extermination program if there is further evidence of an extension of the area where it is present.

An article describing the shipboard use of the rodenticide 1080 was written for Public Health Reports. The 1080 rodent-control program was extended, and has been viewed enthusiastically by the shipping interests, since the rats on a ship can be exterminated with a minimum of interference with the operation of the ship.

A study conducted at the San Francisco station demonstrated that the Norway rat is capable of passing the average guard on lines to vessels; this points the way toward further studies in developing new types of rat guards.

Regulations and Publications

Air commerce regulations were amended and, in December 1946, were incorporated in the revised Foreign Quarantine Regulations which had been promulgated on July 1, 1946. Requirements for detention and isolation of aircraft and persons pending quarantine clearance were clarified, and requirements regarding disinsectization of aircraft were broadened.

The proposed revised Regulations Governing the Medical Examination of Aliens were reviewed by the agencies concerned.

The principal sections of the manual of operations were drafted. This manual will amplify and give detailed procedures under the Foreign Quarantine Regulations.

Facilitation of Air Travel

The division chief served as Public Health Service representative on an interdepartmental survey committee which studied Government inspection procedures at major airports of entry throughout the United States. With the aim of expediting international air traffic, the committee is attempting to achieve standardization and simplification of procedures for inspection and clearance of aircraft, freight, and passengers and their personal effects, on arrival of planes from foreign countries. It is the policy of the Public Health Service to keep airport quarantine activities under continuous scrutiny, with a view to confining inspection procedures to the minimum essential for protection of the health of the Nation.

At a meeting of the Canada-United States Air Facilitation Committee in Montreal, a program of more efficient border clearance procedures was planned. This committee was established by the interdepartmental survey committee.

Local health officers were appointed at several cities to perform quarantine inspections when planes from foreign countries make emergency landings at airports not readily accessible to stations of the Public Health Service.

A duplicate pratique procedure was instituted which eliminates repetition of inspection of planes flying from South America to San Juan and proceeding directly to continental United States fields. The San Juan station forwards with the plane a copy of the pratique and surveillance information.

Collaboration with Other Agencies

Army regulations and Navy general orders on foreign quarantine, reviewed by the division prior to publication, are in close accord with regulations of the Public Health Service. Certain quarantine enforcement procedures are delegated to the Army and Navy when ships or planes of those services are involved.

The Public Health Service officer who served with the Army as supervisor of foreign quarantine activities in Japan, under General Headquarters for the Supreme Commander for the Allied Powers, completed his assignment. He was instrumental in keeping Japan from being overrun with communicable disease during a repatriation program of vast proportions, reestablishing the Japanese foreign quarantine service, and promulgating new Japanese foreign quarantine regulations to cover outgoing as well as incoming traffic.

The division chief was appointed to the Expert Committee on Quarantine, under the Interim Commission of the World Health Organization.

At the request of the Interim Commission of the World Health Organization, the administrator has authorized the assignment of a Public Health Service officer to advise the Chinese Government in the establishment of a national quarantine service.

The assistant chief of the division made a trip to the Canal Zone to confer on a quarantine agreement between the Canal Zone and the United States. Canal Zone authorities have drafted proposed regulations under which ships and planes clearing quarantine at the Canal Zone direct for United States ports normally would be exempt from quarantine inspection on arrival at the United States; and ships and planes leaving this country direct for the Canal Zone normally would be exempt from quarantine inspection on arrival there.

The division furnished the Department of State with information on aircraft quarantine to fill a request of the Swedish Legation for information to be used in setting up a program of sanitary control of aerial navigation in Sweden.

Several officials from foreign countries visited the division to study Public Health Service foreign quarantine procedures, and arrangements were made for their observation of maritime and aircraft quarantine procedures at New York and other United States ports.

At the request of the Maritime Commission, the division directed all quarantine stations to render fullest cooperation in connection with the training program for cadet midshipmen of the Merchant Marine Academy. These trainees are to observe quarantine and rat-infestation inspections on board ships.

The division cooperated with the Department of Agriculture by delegating authority for a program of predeparture medical screening and preventive treatment for imported agricultural laborers. Also, at the request of the Department, a survey was made at the LaGuardia Field substation to determine the effects of DDT on food, clothing, and baggage.

The assistant chief of the division was designated as a representative on public health inspection procedures to act as an expert for the Interdepartmental Committee on Foreign Travel; he will assist in development of recommendations for simplification of international travel inspection procedures, documents, and forms.

Radio Pratique

For the first time since the beginning of the war, quarantine clearance by radio pratique was authorized for certain passenger vessels beginning January 1, 1947, at New York. Only passenger vessels which are approved by the port quarantine officer, which carry approved surgeons, and which call at clean ports are eligible for use of the radio pratique procedure.

Procedures were approved for radio pratique for Army and Navy vessels.

International Conventions

The following conventions, dealing primarily with quarantine procedures, remained in force: (1) International Sanitary Convention, 1926, as amended by International Sanitary Convention, 1944; (2) International Sanitary Convention for Aerial Navigation, 1933, as amended by International Sanitary Convention for Aerial Navigation, 1944; (3) Pan American Sanitary Code of 1924.

Property

Limited funds of the Public Buildings Administration for repairs during the year and restrictions on funds and materials during the war have resulted in approximately $450,000 worth of pending repair and improvement items for quarantine stations. During the year several improvements were brought about, including making the city water supply available to the Sabine, Tex., station in lieu of stored rainwater. The only major work undertaken was installation of a sheet-steel bulkhead for the Charleston, S. C., station boat basin and approaches to correct a condition which caused considerable expenditures for dredging and occasional damage to station boats.

A portion of Fort Armstrong, T. H., was secured from the War Department as a site for the Honolulu quarantine station, in exchange for the Sand Island quarantine station, occupied by the Army during the war.

When Angel Island became surplus to the War Department and was turned over to the War Assets Administration for disposition, permission was obtained for continued use of the San Francisco quarantine station facilities there until a new station is provided elsewhere. The division is negotiating for a mainland site, which is urgently needed.

Replacement of the Galveston station has been placed at the top of the priority list for quarantine construction. This station, condemned in 1938, has had practically no maintenance in the meantime and the buildings are considered dangerous for human occupancy.

Floating Equipment

A naval architect was appointed to supervise the maintenance of the 44 launches used in boarding and fumigating ships and a coordinated repair program was planned.

Late in the fiscal year the 70-foot *Bailhache* was sunk off San Francisco after being struck by the propeller of a large tanker. The accident occurred as the pilot of the *Bailhache* was attempting to get his vessel clear of the tanker following quarantine inspection of that ship. Arrangements were made with the Navy for raising the boarding vessel.

Federal Employee Health Division

On August 8, 1946, Public Law 658, an act to provide health programs for Government employees, was approved by the President. The Act provides that such health service programs shall be established only after consultation with the Public Health Service and consideration of its recommendations. In order to cope with the tremendous work load thus placed upon the Public Health Service, there was created on January 1, 1947, the Federal Employee Health Division.

The division contains Health Education, Mental Hygiene, Nutrition, Public Health Nursing Consultation and Training, and Tuberculosis Control Units; also a Public Health Dental Consultant and a Public Health Engineering Consultant.

Forty-eight requests have been received from Federal departments and agencies for surveys and recommendations concerning their health service programs, and an attempt has been made to answer as many of the requests as possible. Arrangements were made in close cooperation with the Bureau of the Budget, for an interim emergency room program in those agencies submitting informative data concerning existing programs. As personnel permits, on-location surveys will be made, locally and in the field, for those departments and agencies desiring to establish a preventive medical program as authorized by Public Law 658.

The division operated employee health programs in the Treasury Department—Bureau of Engraving and Printing, Internal Revenue, Federal Supply, Register's Office, Liberty Loan Building, and United States Savings Bonds Division—and in the Reconstruction Finance Corporation, Foreign Funds, Labor Department, Federal Communications Commission, National Housing Agency, Office of Education, Atomic Energy Commission, Geological Survey, Bureau of the Budget, Office of Government Reports, National Mediation Board, Public Roads Administration, Public Buildings Administration and Community Facilities, Office of the Administrator of Federal Works Agency, the Residence Halls Infirmaries (at Arlington Farms, West Potomac Park, Langston Stadium, and Suitland) and the Public Health Service.

The division collaborated in the preparation of A Suggested Plan for a Preventive Medical Program in a Federal Employees' Health Service, which was published in the November 15, 1946, issue of Public Health Reports. There was a great demand for reprints of this article.

Medical Care in Other Units of the Federal Security Agency

Office of Vocational Rehabilitation

At the beginning of the year, six medical officers were assigned to the Physical Restoration Section of the Office of Vocational Rehabilitation, four in Washingon and two in field offices. Later this number was reduced to two officers, both in Washington.

The majority of State agencies showed a percentage increase in the number of clients furnished medical services. A number of States have proposed to set up and operate rehabilitation facilities designed to provide services which are lacking either in the State or in large communities. Conferences for State personnel responsible for medical services were held in regions I and II.

Cooperative studies and projects, in which medical officers assigned to the Office of Vocational Rehabilitation participated, included survey of rehabilitation programs in six selected tuberculosis sanatoria, in cooperation with National Tuberculosis Association and Public Health Service; revision of formula used by governmental agencies in purchasing medical care so that hospitals would be paid more nearly the complete cost of care, in cooperation with American Hospital Association, Children's Bureau and Veterans Administration; preparation of publication, The Doctor and Vocational Rehabilitation for Civilians, in cooperation with the American Medical Association.

Medical officers also prepared a booklet, Rehabilitation of the Amputee, designed for use of rehabilitation workers, and a manual on Psychiatric Information for the Rehabilitation Worker.

Bureau of Employees' Compensation

The Bureau of Employees' Compensation, Federal Security Agency, was established effective July 16, 1946, in accordance with the provisions of Reorganization Plan No. 2, which abolished the United States Employees' Compensation Commission, transferring the duties of the former Commission to the Federal Security Agency.

The facilities of the United States Marine Hospitals, Public Health Service dispensaries and medical relief stations and other Federal medical installations are used to the fullest extent possible in providing medical care to Federal civil employees who are eligible for compensation. The medical director and 8 other Public Health Service officers are detailed to the Bureau of Employees' Compensation to supervise the activities of some 4,000 private physicians who are designated to care for injured civil employees in localities where Federal facilities are not available. They pass on fees for medical services, hospital charges and other expenditures including the furnishing of prosthetic appliances.

An average of 30,000 cases are under consideration at all times. According to latest available reports, covering calendar year 1945, the estimated number of Federal employees eligible for benefits under the Compensation Act was 2,815,277.

The bureau continued to provide medical care for a group of civilians formerly interned by the Japanese. The special medical board on silicosis surveyed naval shipyards and made recommendations for preventive measures in foundries and other dusty working environments. Research continued on mustard gas bronchitis and bronchiectasis among employees of the Huntsville Arsenal, Ala. Medical officers attached to the bureau continued to work in close cooperation with the Industrial Hygiene Research Laboratory in carrying out studies concerning health hazards incident to the exposure to chemical fumes and, especially, the inhalation or absorption of toxic substance in connection with degreasing operations.

Medical Care in Other Agencies

United States Coast Guard

The Public Health Service acts as the medical corps of the Coast Guard, furnishing hospitalization and out-patient treatment in marine and contract hospitals, and out-patient service in dispensaries and medical relief stations.

Officers also are detailed to Coast Guard vessels and bases, man motorized dental units, and serve as flight surgeons in the active but comparatively small Coast Guard air service.

At the end of the fiscal year, 31 medical officers, 31 dental officers, 8 nurse officers, and 1 scientist (psychologist) officer were on duty.

Federal Penal and Correctional Institutions

The Public Health Service continued to provide medical and allied services for 27 Federal penal and correctional institutions.

Of approximately 34,000 inmates cared for during the year, there were only 47 deaths. During the spring there was an epidemic of mild influenza throughout the institutions, and at some places as many as one-third of the population were sick at one time.

The continuing shortage of professional personnel inevitably has affected the general standard of services rendered. A number of smaller stations were without the services of a full-time dental officer during the major part of the year, and arrangements were made with local dentists to take care of the most essential cases.

At the Medical Center for Federal Prisoners, Springfield, Mo., merger of the medical custodial assistant group with the Department of Justice correctional officer group was effected to obtain more uniformity in practice, and to eliminate some overlapping of duties and duplication of positions.

Arrangements were made with a number of the State health departments to perform mass X-ray surveys at several of the Federal penal and correctional institutions. Surveys were completed at nine stations where it is now the routine policy to take chest X-rays of all newly admitted inmates.

The annual health examinations of employees of the Bureau of Prisons, discontinued during the war, were resumed during the spring of 1947.

The malaria project launched at the Federal Correctional Institution, Seagoville, Tex., July 1, 1946, under the direction of the National Institute of Health, is using prisoner volunteers. Military prisoners have priority in volunteering for the experiment, and arrangements made with the War Department allow a reduction in length of sentence equivalent to the time of their participation in the project. Each of the 100 inmate volunteers who participated has $100 deposited to his account by the Public Health Service and receives a certificate from the Surgeon General regarding his meritorious service. It is expected that the experiment will continue for at least another 18 months.

During the fall of 1946, the War Department inaugurated the policy of transferring to the Medical Center for Federal Prisoners, Springfield, Mo., chronic psychotic general military prisoners who formerly had been confined in the United States Army Detention Barracks.

At the request of the Director of the Department of Welfare, city of Baltimore, Md., the medical director made a survey of the Baltimore City Jail and submitted a report to the Department of Welfare.

United States Maritime Commission

On June 30, 1946, the major emergency features of the wartime medical program were terminated, insofar as direct participation by the War Shipping Administration-Maritime Commission was concerned.

The program for medical examination of seamen annually, and prior to signing-on for voyage, was not granted any funds and thus was drastically curtailed. The emergency medical program of the Recruitment and Manning Organization and the United Seamen's Service was terminated in most essential respects.

The provision of medical services at sea through the employment of purser-pharmacist's mates on cargo ships, and the control by the War Shipping Administration of supplies and equipment stocked in the ship's medicine chest, were in effect assumed by the operators of the ships after June 30, 1946. On the reduced number of vessels that were operated under general agency agreement, however, the wartime provisions continued in force, but their administration was more a responsibility of the operators than had been the case previously.

Medical activities of the training division were geared to the general activities of that division, which were much reduced as compared with the wartime levels.

During October 1946, the medical office made a study of problems in providing medical service for the nine Maritime Commission Reserve fleets, and assumed supervision of their health units and medical departments and of the Maritime Commission health units in Washington and New York City.

The chief medical officer, on April 15, 1947, assumed the duties of medical director, Bureau of Prisons, Department of Justice, in addition to his duties with the medical office, training division, United States Maritime Commission.

Office of Indian Affairs

The Office of Indian Affairs operated 68 hospitals in the States with a total of 3,728 beds, and 8 hospitals in Alaska with an aggregate of 424 beds. The hospital at Sells, Ariz., serving the Papagos, was destroyed by fire on June 14. Infirmaries were maintained at 14 of the larger boarding schools. Field health programs, comprising mainly public health nursing and field clinic activities, were carried on in approximately 60 additional locations in the States and 20 in Alaska, the number of locations being limited by unavailability of personnel.

The tuberculosis control program acquired two mobile units and undertook mass X-raying at three of the larger reservations.

A final check was almost completed on an estimated 75 percent of persons to whom BCG vaccine was administered 10 to 12 years ago.

Although small outbreaks of influenza, diphtheria, and typhoid occurred, control was effective and no major epidemics resulted. Large numbers of Indians were vaccinated for smallpox.

Services in Alaska were extended during the year. Definite progress has been made, too, in extension of programs and application of State health regulations in Indian communities. A number of tribes, organized under the Indian Reorganization Act, adopted ordinances directed toward the control of communicable diseases.

Three-hundred-and-twenty-four senior cadets of the Cadet Nurse Corps completed their 6 months' tours of duty in 11 Indian Service hospitals, and an additional 154 were on duty at the year's end. Enrollment at the nurses' aid school at Kiowa, Okla., increased, and a class of 21 was graduated in June.

Ten United States Public Health Service officers, including one nurse, were on duty at the end of the year. The shortage of professional personnel prevented much needed extension of services, especially on the Navajo Reservation in Arizona for which funds had been made available.

Foreign Service—State Department

At the request of the State Department, a medical officer was assigned on May 7 to conduct a survey of the medical needs of the Foreign Service and to develop the outline of a health program as provided for by the Foreign Service Act of 1946 and Public Law 658 of the Seventy-ninth Congress. It is estimated that the survey will require 6 months.

BUREAU OF STATE SERVICES

The Bureau of State Services is responsible for the Public Health Service programs of cooperation with State and Territorial health departments. It assists the several States in controlling disease and improving general health by the administration of grants-in-aid and by providing requested cooperative aid, such as consultation.

The bureau is organizationally divided into an Administrative Office, the Divisions of States Relations, Venereal Disease, Industrial Hygiene, Tuberculosis Control, Hospital Facilities, the Office of Public Health Nursing, and the Office of Health Education. Administration of the district offices is a function of the bureau although the district directors are directly responsible to the Surgeon General.

Administrative Office

To aid the direction and coordination of the bureau's administrative activities, manuals of procedures in the fields of general administration and grants-in-aid were initiated and distributed to the Federal and State agencies concerned. Bureau organizational and procedural material was prepared and reviewed as required by the Administrative Procedures Act. Claims for property damage and personal injury resulting from bureau operations were processed, and assistance given in connection with claims arising from other Service operations. Active assistance and cooperation were also given to central Public Health Service staff and other offices in developing several over-all Public Health Service administrative procedures and regulations.

The Grants-in-Aid Section was organized to coordinate the following management functions in connection with grants to States: allotment and payment of Federal grants to States; development and analysis of plans, budgets, and reports; improvement of State personnel administration, and administrative analysis of business management procedures and audit of Federal grants.

In cooperation with the Hospital Facilities Division, the Grants-in-Aid Section developed budget and fiscal procedures for the new hospital survey and planning program, reviewed and processed budgets, and certified payments to 30 States—totaling $349,008.13.

Payments to States under the grant program authorized by section 314 of the Public Health Service Act totaled $29,633,877.71. Of this amount, $8,747,867.71 was for venereal disease control, $6,852,646 was for tuberculosis control, and $14,033,364 was for general health work, including cancer control and industrial hygiene. Distribution of these amounts by State is shown in table 29 of the appendix.

Detailed analyses of information obtained from State plans and reports have been made for use of the various operating divisions in program planning and in justifying requests for grant-in-aid appropriations; also, as subject matter for conferences of professional health groups. State cancer record systems now in operation have been reviewed, and detailed descriptions of these systems prepared for States initiating cancer control programs. As part of a demonstration in health department record keeping, procedures for conducting program reviews of State health department operations have been developed and tested in all Public Health Service districts.

Personnel administration advisers have been assigned to four of the nine district offices to give technical consultation service to States requesting aid, and to stimulate within the district staff a greater knowledge of merit systems and principles and an appreciation of their effectiveness in promoting career employment for qualified health personnel. As the result of continued and increasing shortage of professional and technical personnel, assistance in revising class specifications and in developing more realistic compensation plans frequently was requested by States. Consultation service on personnel administration also was given during the year to 17 State health departments by the central office staff.

The addition of three persons to the former field staff of 10 administrative analysts, together with renewed effort to streamline fiscal audit procedures, increased the total audit performance over previous years. Audits of general health, venereal disease, and tuberculosis control funds embraced 59 audit years and $24,880,341.51 of regular grant-in-aid funds. For the first time, audits were made of Federal grants to State-operated rapid treatment centers. These audits were made in accordance with a new special audit procedure set up during the year. Fifty-three such audits were made in 36 States and involved $3,765,463.20 of rapid treatment center grants. This figure includes $509,780.66 given in services and supplies in lieu of cash amounts. Reviews were made of audit reports covering 59 fiscal years of regular grants to States and covering 40 rapid treatment centers; also, two special audits were reviewed. Assistance was furnished in devising instructions and forms relating to accounting by grantees under the hospital survey and construction program.

The 1947 Directory of State and Territorial Health Authorities has been prepared for publication, and a 1947 Revised List of Full-Time Local Health Officers is being compiled.

In accordance with the President's Reorganization Plan No. 2 of 1946, considerable work has been done with the Office of Federal-State Relations of the Federal Security Agency in an effort to devise more uniform State plans for all member organizations of the Agency. Two members of the staff were detailed to the Federal Security Agency to assist in surveys on the coordination of audits of related grants and other aspects of Federal-State relations.

Health Services for Migrant Workers

Health services, including physicians' and nurses' care, dental care, hospitalization, and drugs, besides the usual preventive services, are furnished to all foreign workers transported into the United States by the Labor Branch, Department of Agriculture, and to certain categories of American migrant farm families. The 20 Public Health Service officers detailed to this program supervise and give professional direction to 6 regional nonprofit corporations—Agricultural Workers' Health Associations—which are under contract to the Department of Agriculture to provide these services.

Clinics, usually with full-time nurses in charge, are operated by the Associations wherever eligible farm workers are concentrated. Federally operated farm labor camps and the foreign workers' quarters of private agricultural enterprises are inspected to insure observance of satisfactory sanitation procedures.

An average of approximately 60,000 foreign workers (Mexicans, Jamaicans, Bahamans, and Barbadians) and 25,000 American farm migrants were eligible at any one time during the year for health care under this program, and a total of 377,000 cases received services. Physicians' visits totaled 205,000 and nurses' visits 527,000; 6,700 cases were hospitalized and 12,280 dental cases were treated. The Migratory Labor Hospital at Belle Glade, Fla., employing a full-time salaried staff, admitted 1,700 patients for a total of about 120,000 days of hospitalization. Cost of the program was about $2,200,000, or an average of $2.20 per month per eligible worker.

State and local health departments, State Offices of Vocational Rehabilitation, and other local health and welfare agencies gave valuable assistance during 1947 in furthering the aims of the migrant workers' health program.

Philippines Rehabilitation

During the first 6 months of the calendar year 1946, the Public Health Service inaugurated a program of assistance to the Philippines in rebuilding health services which had been disrupted by the war. By the beginning of fiscal year 1947, work was well under way on the following programs: malaria control, tuberculosis control, venereal disease control, maternal and child health, nutrition, leprosy control, health education, and foreign quarantine.

Following enactment of the Philippines Rehabilitation Act, $2,946,000 was appropriated to the State Department to continue these programs during the fiscal year 1947. In September the funds were transferred to the Public Health Service for administration.

Assistance to the Philippines in rehabilitating health services is a 4-year project which will be terminated June 30, 1950, and will involve a total expenditure of $5,000,000 by the United States.

Office of Public Health Nursing

The Office of Public Health Nursing has general supervision over all nursing operations carried on by the several divisions of the Bureau of State Services and has professional supervision of all nurses employed through that bureau. This office is also responsible for advising the chief of the Bureau of State Services, the district directors and the several chiefs concerning the programs which involve nursing and for the recruitment, selection, and assignment of nursing personnel in accordance with the needs of the districts and special divisions.

On June 30, 1947, there were 185 nurses and 7 nurse's assistants on duty in the Bureau of State Services, as compared to 286 nurses and 25 nurse's assistants on June 30, 1946. The reduction has been primarily in the rapid treatment centers, the Federal Public Housing infirmaries, and in the Surplus Property services. The number of Regular Corps nurse officers increased from 38 to 59 during the year. Appendix table 26 shows the distribution of nurses by divisions and sections.

Assignment of General Public Health Nursing Personnel to States

Twenty-eight Regular Corps officers have been on assignment to States during the fiscal year 1947 for the following purposes: 10 nurses have been assigned to States to assist in furnishing field training to university students and orientation to new personnel within each State; 3 nurses have been assisting local health departments to include bedside nursing in the general public nursing program; 10 nurses have been serving as supervisors in local and State health departments until States can secure and prepare their own personnel; 4 junior grade officers have been assigned to local health departments primarily for the supervised experience; 1 nurse has been assigned to a school of nursing to demonstrate the integration of social and health aspects of nursing in the basic curriculum.

In June 1947, six new Regular officers were called to duty for public health assignments. One was assigned to a district office as district nursing consultant; one as supervisor of a field training center; one to the tuberculosis research section; one to States Relations Division for heart disease studies; and two to the States to assist in the inclusion of bedside nursing in health department programs.

Requests have been received from the district offices for the assignment of 66 additional nurse officers for the fiscal year 1948 for the following purposes: Assistance in establishing field experience centers; assistance in establishing complete public health nursing service, including bedside or visiting nursing under official administration; relief for State personnel who have been granted educational leave; assistance to basic schools of nursing in the integration of social and health aspects.

About 20 new Regular Corps officers will be available during the early part of the fiscal year 1948. However, in addition to those requested for assistance to the States, a number of additional nurses will be needed by the special divisions of the Public Health Service, and several requests have been received for nurses to participate in epidemiological studies to be carried out under the Communicable Disease Center in Atlanta.

Examinations for the Regular Corps

The chief of the office served as chairman of the board to examine nurse candidates for the Regular Corps. The board conducted oral examinations in 21 different cities and interviewed approximately 250 candidates. A total of 130 passed the physical examinations and were qualified to take the written examinations. Of these, 83 nurses met all of the qualifications for entrance to the Regular Corps. About half of the new Regular Corps officers are qualified for public health nursing. All of the new officers in the senior assistant nurse officer grade had one or more college degrees; all but three of the assistant nurse officers and seven of the junior assistant nurse officers had academic degrees.

Assistance to Foreign Visitors

Various staff members have had conferences with many visitors, mostly nurses, from foreign countries. UNRRA was responsible for arranging 1-day conferences for groups of 20 or more nurses from China, Poland, Czechoslovakia, and Italy. Some of the nurses who had come to the United States primarily to attend the International Congress of Nurses sought the opportunity to learn from the Public Health Service about public health nursing in the United States. American methods of providing public health nursing services have been explained to a dozen or more physicians from foreign countries and to about 100 foreign nurses.

Central Office Activities

The central office staff participated in the work of numerous national boards and committees concerned with public health nursing developments, such as Education Committee of the National Organization for Public Health Nursing, Committee on Professional Education of the American Public Health Association, National Nursing Planning Committee, Cost Analysis Committee of the National Organization for Public Health Nursing, Joint Committee on the Structure of National Nursing Organizations, Board of Directors of the American Journal of Nursing, and Program Committee of the American Public Health Association.

Consultation visits were made to all but two of the district offices during the year and the Office of Public Health Nursing was represented at three regional conferences of State directors of public health nursing. Papers were presented at 10 national, regional, or State meetings during the year. Since there was no full-time nursing consultant in district No. 6, the chief of the office spent 2 weeks in that district assisting the nurses in Puerto Rico. One of the other district nursing consultants participated in a health survey of the Virgin Islands.

In order to coordinate the public health nursing work of all divisions within the Public Health Service, periodic staff conferences are called by the Office of Public Health Nursing. Annually, all of the district consultants join the consultants from the special divisions for a week or more to discuss and plan ways in which the district consultants can coordinate the special programs within the States of their respective districts.

As new services are being developed, the office supplies guidance and lends personnel until permanent nursing personnel can be provided. Assistance to the Cancer Control Section is an example of this type of service.

Annual Census of Public Health Nursing

The annual census of public health nursing has become a service which is utilized and relied upon by national and State agencies and by the universities concerned with public health nurse education.

The total number of nurses employed in the United States for public health work on January 1, 1947, was 21,499. This is the highest total ever recorded, although it falls far short of meeting the minimum requirements of 1 public health nurse to each 5,000 of the population. (See appendix table 27.)

The percentage of nurses who had completed at least one academic year in an approved public health nursing program of study increased to 28.9 percent, but did not reach the all-time high of 29.2 percent, attained in 1944.

The number of counties having no full-time nurses engaged in full-time public health work in rural areas is 1,087. This is a slight improvement over 1946, when the total was 1,133. Only 18 cities having populations of 10,000 or more reported total lack of public health nursing services in 1947, whereas in 1942 there were 32 cities without any nurses engaged in full-time public health work, and 23 in 1946.

Special Survey of Vacancies in Established Public Health Nursing Positions

Early in the fiscal year, a joint committee from the Conference of State Nursing Directors and the Collegiate Council on Public Health Nursing requested the Public Health Service to make a survey of vacancies in public health nursing positions for which there were funds in the operating budgets. This survey was completed in February, and showed that on January 1, 1947, the actual number of vacancies in budgeted positions (exclusive of New York City) was 2,489. About one-tenth of the positions were in the supervisory or administrative grades and the remainder in staff positions. In addition to the actual vacancies in budgeted positions, the States reported 1,194 additional vacancies expected by July 1, 1947. (See appendix table 28.) This material was analyzed by State, by type of agency, type of position, and salary range. The results were made available to the universities and all placement or employing agencies in order to distribute the available recruits as effectively as possible.

Study of Field Experience Facilities

The lack of field experience facilities is one of the limiting factors in the education program for public health nursing. Again, a joint committee of the State nursing directors and the universities concerned with public health nursing education was formed to study resources for student field experience in public health nursing. The assistant chief of the Office of Public Health Nursing has served as secretary for this committee. Each State director of public health nursing has been urged to review potential field experience resources within her own State, and to call a conference to include representation from the university or college offering public health nursing program of study in her area, as well as nurse representatives from the State board of nurse examiners and from the field agencies concerned. It is believed that a joint review of this type in each State will result in the location and development of many additional areas which may be used by the basic and postgraduate nursing schools.

Activities of Consultant Nurses in Special Divisions

Reports of nursing activities in the special divisions are included in the respective division reports. Increasingly, the public health nursing consultants are finding it necessary to extend the service to include assistance to hospitals and sanatoria concerned with their specialties. Thus it is hoped that all nursing, both public health and institutional, will be coordinated and that each group will consider the patient not merely as a hospital or home case but as a person who needs continual nursing care and guidance.

Activities of the District Nursing Consultants

Because of new and expanding programs, additional nursing assistance is needed in district offices. It seems essential, in the larger districts at least, to add one additional general consultant nurse to the staff.

States Relations Division

By authority of section 314 (c) of the Public Health Service Act of 1944, the States Relations Division continued, during 1947, to assist the States in developing and providing more effective public health services through the allocation of grants-in-aid.

During the year, funds were appropriated for administering cancer grants-in-aid to States through a Cancer Control Section set up in the division.

The Hospital Facilities Section was organized as a division under the Bureau of States Services shortly after the beginning of fiscal year 1947. Pertinent material on the activities of the section from July 1, 1916, until its organization as a division on August 16, 1946, is included in the report of the Hospital Facilities Division.

The Office of Surplus Property Utiliziation was terminated September 30, 1946. A brief resumé of the work of the office appears later in this report.

The following sums were appropriated to the States Relations Division for fiscal year 1947: Assistance to States, general, $15,565,000;

control of communicable diseases, $7,897,000, including a $525,000 deficiency appropriation; and traveling expenses, $454,700.

Cooperation with the following agencies was carried on during the year: Department of Agriculture, State Department, Federal Works Agency, Tennessee Valley Authority, and Federal Public Housing Authority. Supervision of the Boulder City Hospital, which the States Relations Division has administered in the past for the Bureau of Reclamation, Department of Interior, was transferred to the Venereal Disease Division.

Conference

The forty-fifth annual conference of the State and Territorial Health Officers with the Public Health Service and the Children's Bureau was held on December 3–5, 1946, in Bethesda, Md. The Surgeon General reported that progress had been made in realizing the objectives of the Public Health Service. The relation of State health authorities to the following health legislation was discussed: National Mental Health Act, Hospital Survey and Construction Act, and the enactment permitting Federal grants-in-aid to States for cancer control programs. Future programs of various committees were also reported on and adopted.

Assistance to States, General

During fiscal year 1947, $14,250,000 was made available for grants to States for "establishing and maintaining adequate public health services," as authorized by section 314 of the Public Health Service Act of 1944. This amount represented an increase of $3,250,000 over the appropriation for the previous year. For the first time, $2,500,000 of this amount was specifically allotted for cancer control and $1,000,000 earmarked for industrial hygiene, leaving $10,750,000 for general health services. Payment to the States totaled $14,033,364. Distribution of this amount to the several States is shown in appendix table 29.

State appropriations for public health activities have continued to increase. Excluding allocations for hospital care and maintenance of sanatoria, appropriations by State legislatures to State health departments during 1947 equaled 32.8 cents per capita. This represents an increase of $8,600,000, or 6.4 cents per capita, over 1946. Reports have been received from a number of States indicating that large increases in appropriations for health work during 1948 have been enacted in recent legislative sessions.

An outstanding development in local health organization occurred in Illinois in November 1946, when 17 out of 18 counties voting endorsed the principle of organization of the county health unit under full-time direction. The amount and quality of service made available to the population concerned will be greatly increased.

Little change has taken place in other States in this direction. The organization of new local units as well as the continuation of existing units was handicapped again during the past year by the shortage of medical personnel. Until this personnel deficiency is overcome, real progress in local health organization will continue to be difficult.

A shortage of trained personnel in the cancer field also hampered the new cancer program. However, most of the States initiated some activity in cancer control and laid the groundwork for a more complete program during the ensuing fiscal year. Other health programs of a generalized nature continued at about the same level as during the previous year.

Cancer Control Section

The Cancer Control Section was established in August 1946 to administer grants under a congressional appropriation of $2,500,000 to assist the States in cancer control activities.

In spite of a marked scarcity of personnel, the concern of the States over the problem of cancer and their interest in a program of cancer control were reflected in the formation within State health departments of 12 administrative units devoted to combating cancer; in the previous year only 8 such units existed. Full-time administrators in State cancer control programs also increased from 8 to 20.

Awareness that cancer is the second leading cause of death in the United States, with 181,000 deaths resulting from it annually, has created an increasing demand in the States for consultative services and for the loan of qualified personnel. In order partially to meet this demand, medical officers were assigned during 1947 to seven of the district offices to serve as special consultants in cancer control.

With the cooperation of the New York State Cancer Hospital, Buffalo, N. Y., and the Memorial Hospital and Cornell Medical College, New York City, 16 medical officers were given orientation and training in cancer control. Toward the close of the fiscal year, a public health nursing consultant was assigned to the section to develop the role of the public health nurse in the cancer control program. An institute, attended by a group of eight nursing consultants from Public Health Service headquarters and the district offices, was conducted at Buffalo, N. Y., and field observations were carried on in New York City and Nassau County, N. Y.

Liaison has been established by the section with the pertinent national professional societies and voluntary agencies in order that proper integration and understanding of cancer control activities might be promoted.

Dental Section

Forty-three States conducted dental health programs during the year, and considerable progress was made in the States in filling staff positions which remained vacant during the war years. Additional assignments of dental officers were made by the Service to the district offices, and district No. 5 was the only district office in the continental United States without a full-time dental consultant by the close of the year. Estimated funds from all sources made available to the States during the year for dental health programs amounted to $1,349,013.58.

Close liaison was developed during 1947 between dental consultation personnel of the Public Health Service and the Children's Bureau. The two agencies have agreed that dental consultants assigned to the States by the Service will act as consultants for the Federal Government in all matters relating to grants-in-aid for dental services, regardless of which agency specifically allocates the funds.

The section continued its project of fluorinating the water supply of Grand Rapids, Mich., in the 10-year study program to determine the value of adding sodium fluoride to drinking water as a means of preventing dental caries.

Studies were also undertaken in cooperation with the Minnesota and Ohio Departments of Health, to determine the prophylactic effect on caries of fluoride solutions applied topically to the teeth. These investigations, which are still being carried on, have shown thus far that an initial dental prophylaxis enhances the caries-inhibiting effect of the fluoride solution applied, and that the use of four applications of a 2-percent sodium fluoride solution results in the maximum reduction of 40 percent in caries incidence.

In order to demonstrate the practicability of preventing dental fluorosis by treatment of the local water supply, construction of a treatment plant was begun during 1947 at Britton, S. Dak., a community with a population of about 2,000 persons. This plant is designed to reduce the fluoride concentration in the town's drinking water to 1 part per million. A laboratory study of defluorination methods, which are available for communities of this size whose water supplies contain up to 8 parts per million fluorine content, has indicated that tricalcium phosphate contact filters work most efficiently and the Britton Plant will use this method.

A new method for reducing the fluoride content of water was developed and tested successfully at the Water and Sanitation Investigations Station in Cincinnati, Ohio. Further tests of this method, which involves the absorption of fluorides in a floc and the subsequent removal of the floc by settling and filtration, are now being made on waters with a high natural fluoride content.

The Woonsocket, R. I., dental care project has now been in operation for more than a year and a half. Six dentists, eight dental assistants and one dental hygienist, four clerks, and a follow-up worker comprise the staff of this project. It is estimated that the backlog of dental needs in the town among children eligible for treatment will be eliminated during 1948. Requests for service continue to be received at a rate of about 90 percent of the eligible school-age population.

A dental care project similar to the Woonsocket program was begun in December 1946 in Richmond, Ind., a town with a population of approximately 35,000.

An important aspect of both of these projects has been their demonstration of the use of ancillary dental personnel and adequate equipment. Dental hygienists, for example, perform all prophylaxes, and each dentist is provided with two complete operating units. It has been shown that every two dentists can use efficiently the services of three chair-side dental aids. It has been found, further, particularly as a result of the Woonsocket experience, that dental care services are used most effectively when they are made readily accessible. The factors of average cost of both initial and maintenance care are also being studied in connection with these demonstrations.

Cancer of the oral cavity accounts for approximately 10 percent of all malignant tumors reported annually in the United States. It has been estimated that prompt and proper dental attention could cut the annual total of oral cancer from 5,000 to 500 deaths. Plans are now being worked out by the section to provide for the participation of dentists in the cancer control program through such devices as development of postgraduate courses in oral cancer diagnosis and prevention for practicing dentists; extension of oral diagnostic and treatment services in hospitals and provision for dentist participation in cancer detection and treatment clinics; provision for increased use by dentists of existing diagnostics laboratory facilities, including possible payment by the section of fees for biopsies and histopathologic interpretations; and arrangements for inclusion of qualified dentists in cancer surveys and epidemiological studies at State and local levels.

In cooperation with the Chicago Dental Society, the section took part in a general health survey conducted during 1947 in the Chicago-Cook County area of Illinois. The incidence and consequences of dental disease, the personnel and facilities available for dental health services, and the evidence of utilization of services were determined by sampling methods. Recommendations based on these findings included suggestions for better administrative organization of the region's dental health program, more efficient use of available dental care facilities, and redistribution of these facilities in order to make them more accessible to potential patients.

At the request of the division's Nutrition Section, a dental survey was made of 878 children in Cumberland, Md. Preliminary analysis of the data collected in this investigation indicates no correlation between clinical gingivitis and diets containing supplements of vitamin C; or between gingivitis and blood levels of vitamin C. Periodic dental examinations of these children will be continued to determine the effect of diet upon incidence of dental disease.

Analysis of the results of a 5-year dental health program in Nicollet County, Minn., has shown that an accurate estimate of the dental care needs of children in a community and base-line and follow-up data for the evaluation of a program can be secured by making the following calculations: (1) determination of the percentage by age of children having one or more decayed permanent teeth, and application of this percentage to a standard curve showing the relationship between the percentage of children having one or more teeth with carious experience and the average number of teeth affected per child; and (2) counting of permanent teeth extracted or indicated for extraction and determination of tooth-loss rates by age.

The effectiveness of the Nicollet County program may be measured by a comparison of the current tooth-loss rate in the county with that existing when the project was first begun. An over-all reduction in this rate of about 30 percent was achieved during the study period, and the number of children showing evidence of dental care in the form of fillings was about 20 percent greater at the end of the 5-year program than at its inception.

Nutrition Section

The Nutrition Section continued its demonstration programs during 1947, centering its activities in the Southeastern, Middle Atlantic, Northeastern, and Midwestern areas.

The detection of nutritional deficiency states in man was given considerable attention through the study of the specific signs and symptoms associated with deficiency states, by the development of practical laboratory procedures and techniques, and by development of methods for collecting and processing dietary information.

In all, 7,646 subjects were examined during the fiscal year by the field units. These individuals were studied in family, industrial, and school groups for physical signs suggestive of nutritional deficiencies. In addition, approximately 5,696 individual diet records were secured, and laboratory determinations were made in the following quantities: hemoglobin tests, 5,522; hematocrit tests, 4,797; plasma protein tests, 4,508; vitamin C blood serum tests, 3,688; vitamin A blood serum tests, 1,447; and carotene blood serum tests, 1,475.

A survey of 829 individuals of all ages in Houghton County, Michigan revealed that the diet of a high percentage of them contained less of several of the basic food groups than the allowances recommended by the National Research Council. Clinical signs which have been associated with vitamin A deficiencies were found in a significant number of individuals. Palpable enlargement of the thyroid gland was also found to be prevalent.

A survey of the nutritional status of 379 employees of the Flint River Cotton Mill at Albany, Ga., and their families was undertaken in cooperation with the State Health Department and Emory University. It was completed prior to the construction of a company cafeteria for the employees and their families. After a suitable interval, a resurvey will be made to demonstrate the value of industrial feeding programs on the nutritional status of the group.

One hundred and thirty families were represented by the 339 individuals examined for nutritional defects in the mining town of Kitzmiller, Md. Although tongue changes occurred chiefly in tobacco chewers, it was felt that vitamin B deficiencies might be a contributory factor since there was some response to specific therapy. Signs of previous rickets, gingivitis, skin folliculosis, and low vitamin C blood levels were common.

A total of 509 individuals of all ages and both sexes was included in a nutritional survey made among a group of Negro families living near the northern limits of Detroit, Mich. The physical findings suggested high percentages of vitamin A, vitamin C, and vitamin D deficiencies in the subjects examined. The laboratory data revealed a trend to low hemoglobin content, and a check on the food consumption of the population surveyed revealed diets containing less than the National Research Council's allowances of foods rich in vitamin A and C, and of milk, animal protein, and whole grain products.

The section began therapeutic testing demonstration in the schools of Alachua County, Fla., in October 1946, with base-line determinations of clinical and laboratory signs of nutritional deficiency and of food consumption. Feeding of the specific nutrients, vitamin A, vitamin C, and iron, was begun in November 1946 and continued until April 15, 1947.

A survey of 356 students in the high school in Holland, Mich., was made during the month of February 1947, and 1,899 children of school age were appraised for nutritional status in Brattleboro, Vt., during the academic year 1946-47.

A cooperative study with the United States Department of Agriculture was begun in September 1946, at Cumberland, Md. The purpose of the study was to evaluate the nutritive effects of a good school lunch. The section has been responsible for the nutritional appraisal of the school children participating in the study.

Heart Disease Control Section

The activities of the Heart Disease Control Section during the past year can be summarized under the two categories of technical development and field control.

Technical development activities included the adaptation, development, and evaluation of new and improved methods of discovery, early diagnosis, prevention, and treatment of diseases of the heart and arteries. This work was done on selected population groups in cooperation with recognized medical institutions and specifically qualified individuals.

Emphasis was necessarily placed on technical control activities. The first potential case-finding tool, the electrokymograph, was completed and is being thoroughly evaluated before application to the general population. This evaluation and research on other scientific problems related to cardiovascular diseases are being carried on in cooperation with Temple University Medical School, University of California Medical School, University of Pennsylvania Medical School, and the United States Marine Hospital, Baltimore, Md. Equipment has been loaned to the medical schools of the University of Colorado and the University of Minnesota.

Demonstrations have been carried on to show the usefulness and application of this new instrument. To stimulate its commercial development, its use was demonstrated before engineers of the various medical instrument manufacturing companies. During 1947, the section built the electrokymographs it needed, but this is no longer necessary as commercial models are now appearing on the market.

The electrokymograph was also shown at the American Medical Association Convention in July 1946, winning the second highest award given at the convention, the Silver Medal. At the American Roentgenological Association meeting it was awarded another Silver Medal. The instrument was also displayed at the American Roentgen-Ray Society and the 1947 American Medical Association Convention. Individual cardiologists, physiologists, and roentgenologists from all parts of the world visited the Heart Diesase Control Section to observe the electrokymograph.

The Temple University cooperative unit is seeking to determine, in the course of experimentation with the electrokymograph, the range of variation in the heart record of normal persons. These normal variations must be thoroughly established so that changes occurring during the development of cardiovascular disease may be identified early.

Basic developmental work and instrument designing are being carried on by the section in connection with the construction of other potential case-finding tools, such as the ballistograph and the dialectrograph, which have not as yet been perfected to the point where they can be applied to human subjects.

As part of its program, the section's Technical Development Unit also presented papers on the use of the electrokymograph to various interested schools and organizations during 1947.

Field control activities of the section are concerned with the application of all established methods and techniques for the early detection and prevention of heart disease; they also include the rehabilitation of persons having diseases of the heart and arteries.

By accumulating knowledge and data on heart disease control, the section is preparing to establish a model cardiac control center at the local health organization level.

Diabetes Control Demonstrations

In order to attack most effectively the many problems in diabetes control, the following activities were initiated during the past fiscal year: (1) Study of the incidence of diabetes: (2) setting up of demonstration units for the development and application of methods to be used by health departments and other agencies in diabetes control; (3) development of simplified tests and procedures for mass surveys; (4) education of the general public in the characteristics of diabetes mellitus; (5) education of professional personnel, and stimulation of their interest in the diabetes problem.

A diabetes incidence survey was conducted in Oxford, Mass., which, as a town of mixed urban and rural character with a stable, cosmopolitan population of approximately 5,000 people, was well suited for a project of this type. About 77 percent of the town's population over 6 years of age, or 3,516 persons, volunteered to take the various tests included in the survey. Urine and blood specimens of this group were collected and analyzed by several methods. Rechecks and glucose tolerance tests were given for confirmation to all persons suspected of having the disease. Those whose tests showed abnormal results were advised to see their family physician for a diagnosis, and complete records of the laboratory examinations were sent to their physicians in such cases.

The survey revealed that there were 70 diabetics in the group examined, 40 of whom knew previously that they had diabetes and 30 of whom were ignorant of the fact before the tests were made. Sufficient members of all age groups were examined to provide a statistical sample suitable for projection on a Nation-wide basis. This projection shows that approximately twice as many people in the United States as was previously thought have diabetes.

A subsequent survey of 3,000 people in Southbridge, Mass., confirmed the Oxford findings.

A Diabetes Control Unit was established in and integrated with the Brookline, Mass., Health Department. An advisory council of local physicians previewed all plans and evaluated all work of this unit. A preliminary period was devoted to general health education in diabetes through articles in a health bulletin distributed monthly to each family in Brookline, radio commentaries, news releases, and talks by the unit's personnel to civic, social, and religious groups of the town.

Another such control unit has been set up in Jacksonville, Fla., and is working in close collaboration with State, county, and local health agencies. The central aim of this project is the establishment, with the cooperation of physicians and hospitals in the city, of a diabetes register which will contain the name of every diabetic in Jacksonville. That this program has been accepted by both the medical profession and the general public is evidenced by the fact that more than 300 persons with diabetes registered within a period of 2 months. Blood relatives of these people were invited to submit to tests for diabetes, and 80 percent of those contacted have so far responded. Plans are under way to reach other groups of the population in which the incidence of diabetes is believed to be high.

The Office of Surplus Property Utilization

The Public Health Service terminated its participation in the surplus property disposal program effective September 30, 1946, on which date the functions of the division's Office of Surplus Property Utilization were absorbed by the War Assets Administration.

The Surplus Property Act of 1944 (sec. 13a) authorizes property disposals at a reduced price and on a basis of relative need to non-Federal governmental and nonprofit health and educational institutions. The Public Health Service was asked to give technical assistance to the disposal agency by certifying the eligibility and relative need of public health claimants to acquire personal and real property at discount.

On items of personal property, the disposal agency fixed the discount from fair value at 40 percent. By July 31, 1946, public health specialists assigned to 18 field disposal offices had, in 6 months of operations, certified 7,347 orders with a fair value totaling $9,600,000. Of the total valuation, orders from hospitals accounted for 48 percent; professional schools (including their hospital affiliates), 12 percent; sanitation services (water, sewage, garbage, insect control facilities, etc.), 38 percent; and health departments, 2 percent. Only 7 percent of the requested property was ordered by private nonprofit agencies, while 93 percent came from governmental claimants. In all, 1,171 health agencies ordered property, but only 653 placed more than one order.

Actual sales were considerably less than orders since the needs of higher priority claimants (veterans, Federal Government, small business) and competing State and local instrumentalities absorbed most of the desirable sales offerings.

Permanent discount certificates were substituted for individual mail order certifications when the disposal agency adopted a Nation-wide program of "site sales." Some 22,500 possible eligible claimants were notified of the new procedure. By September 30, 1946, 2,852 public health agencies had requested and had been issued discount certificates. Among these were 1,275 hospitals (of which three-fourths were private nonprofit institutions), 289 health departments, 73 professional schools, 82 other medical facilities, 985 water, sewer, garbage, or other sanitation services, and 148 miscellaneous health agencies.

With the inauguration of the certificate system, the Public Health Service felt that its professional services were no longer necessary in the surplus property disposal program and, accordingly, received approval to release its staff for more essential public health duties.

On request of the War Assets Administration, the office also surveyed 78 surplus real properties to recommend their best community use for public health or other purposes. The surveys recommended transfer at nominal cost to health agencies of some 56 military hospitals and camps with an estimated capacity of 34,730 hospital beds which might be made available for community use. Of these, at least 16 properties with a bed capacity of 18,780 were tentatively approved for transfer up to the time the activities of the office were terminated.

Records and Reports Program

The Demonstration in Health Department Record Keeping, established during 1947, is aimed at alleviating some serious problems in the field of health department record systems. These problems are caused largely by the collection of unnecessary information, lack of coordination and duplication in maintaining records, and by the dearth of trained personnel available for employment in records sections.

The demonstration, conducted cooperatively by the States Relations Division, the Records and Reports Unit of the Bureau of State Services, and the Division of Public Health Methods, has been divided into three main lines of investigation and experimentation: (1) Study of a number of local health departments to determine the extent to which the records in use facilitate operation and measure the accomplishments and progress of the department, the extent to which duplicating and nonuseful records are contained in the records system, and the additional training needed by the personnel involved; (2) development and testing of training curricula for records personnel of different classes; and (3) exploration, development, and demonstration of the program review procedure as an administrative technique to be substituted for voluminous statistical reports in grant-in-aid operations.

Studies of the local record keeping problems and the training required by personnel maintaining the record systems in use have been conducted in 18 health departments in North Carolina and in the Louisville-Jefferson County Health Department in Kentucky. In the latter department, plans have been laid for demonstrating recommended improvements during the next fiscal year.

Two types of training courses—one for clerical personnel maintaining health department records and one for more advanced analysts and consultants—have been developed during the year. The first training course for record consultants was held from April 14 to June 7, 1947, at the Savannah, Ga., Training Station. Plans for the first course to be given in Raleigh, N. C., for clerical personnel of local health units of that State have been completed.

Procedures for conducting program reviews in State health departments have been worked out in collaboration with program representatives of all operational divisions of the Service. The program review, as a means of acquainting grant-in-aid agencies with the performance of organizations receiving grants, has been demonstrated in Florida, Illinois, and Kansas, and introduced to the personnel of all Public Health Service district offices.

Program Analysis Section

During fiscal year 1947, the section collaborated with the Nutrition, Dental, and Diabetes Sections in developing extensive statistical material from basic records collected by field study units.

A study of methods for apportionment of grant-in-aid funds from State to local health unit jurisdiction was undertaken at the request of the State and Territorial health officers. Members of the staff working on the study assisted Michigan and North Carolina in the development of techniques for measurement of local health needs and the fiscal capacities of local jurisdictions. They also helped devise appropriate formulas and procedures for the apportionment of State funds.

An intensive investigation of the published material on grants-in-aid has been initiated. This material, together with data from closely related fields such as shared taxes and fiscal capacity of States, is now being compiled and annotated. It will form a comprehensive bibliography offering background information for the establishment of formulas for the distribution of grants-in-aid on Federal-State and State-local levels. It will also serve as a reference source in the analysis of other allotment problems that arise in the division.

Another study under way is a description of the various programs and services developed over the period during which Federal funds for general health purposes have been available to the States. A report of this investigation is being drawn up for publication early in the coming fiscal year.

An analysis of the future need for physicians—both general practitioners and specialists—was carried on throughout the year. The results are in manuscript, and a report for publication is in progress.

Communicable Disease Center

The group of diseases with which the Communicable Disease Center (CDC) in Atlanta, Ga., is most concerned at present is generally characterized by the fact that causative agents, transmitters, or reservoirs of infection are known or thought to be zoological. It includes malaria, amoebiasis, schistosomiasis, hookworm, filariasis, yellow fever, dengue fever, certain neuro-virologic disorders such as poliomyelitis and encephalitis, the various forms of typhus and plague, sandfly fever, diverse diarrheas and dysenteries, and related diseases. This consolidation, while clinically heterogeneous, represents a sound and workable arrangement from the standpoint of laboratory diagnosis, epidemiologic investigation, and control operations.

Single administrative authority over varied programs covering such a broad group of diseases permits wide interchangeability and combination of professional skills enlisting the united efforts of the physician, the sanitary engineer, and the public health biologist. Maximum efficiency is attained with a minimum of personnel, thus effecting significant and far-reaching economies.

The Center continued its operational, training, and investigational activities during 1947 and, in addition, provided special facilities to the States which they were unable to organize with their own resources. It transmuted scientific facts about communicable disease into practical methods of control, promoted the utilization of these methods by demonstrating improved techniques, and trained health personnel in their field application.

Malaria control.—Forty-five war establishments, mostly hospitals, in 15 Southeastern States were protected against malaria by larviciding, and 30 additional establishments were kept under entomological surveillance. In the extended malaria control program, 1,400,000 DDT residual house spray applications were made during the year in 293 counties in 13 States. Labor man-hours per house spray application averaged 1.3, or a decrease of 20 percent from the previous year.

Over-all State, county, and local participation in defraying the cost of such operations has risen to approximately 50 percent of the total and is progressing toward the eventual goal of complete non-Federal cost coverage.

To increase efficiency and economy, an experimental program was undertaken, in one county in each of several States having CDC activities taking place within their borders, to determine the effectiveness of one spray application of 200 mg. per square foot per house per season. Inspections, made 1 to 5 months after spraying with this concentration of DDT took place, showed that *Anopheles quadrimaculatus* were found in only 1 percent of the sprayed houses. This may be compared to 2.8 percent the previous year after an application of only 100 mg. of DDT per square foot. It was found, further, that these mosquitoes infested over 12 percent of the houses in unsprayed areas.

The results of 25,798 precipitin tests of engorged mosquitoes from sprayed premises showed that only 40 tests, or 0.2 percent, gave reactions for human blood, while of 6,509 specimens collected from unsprayed premises, 74, or 1.1 percent, gave human-positive reactions. This difference is highly significant statistically, indicating 82 percent less *Anopheles* containing human blood around sprayed as against unsprayed premises.

Impounded water.—A total of 27 requests for malaria survey reports on impounded water was received this year from 13 States in 12 War Department engineer districts. The Impounded Water Section completed 78 survey reports initiated during 1947 and the previous year, including 3 for the International Boundary and Water Commission (operating between the United States and Mexico).

Aedes aegypti control.—This program is an example of the achievement of a complete merger of CDC activities with State and local health programs. The 15 projects undertaken with CDC assistance at the start of the fiscal year were wholly incorporated into State and local sanitation activities by the end of the year; consequently, no Federal funds are being appropriated for the fiscal year 1948 for *Aedes aegypti* control.

Murine typhus control.—The twofold attack on murine typhus fever, involving rat ectoparasite and rodent control, continued on an increasing scale during the year largely because of additional local participation in the program amounting to approximately 65 percent of the total cost of operations. Besides the nine principal typhus States and Puerto Rico, assistance was extended to Norfolk, Honolulu, and Pulaski County, Ark. DDT dusting for rat flea control was conducted in 539,000 premises in 138 counties, and 6,500 establishments in 56 cities were ratproofed and freed of rats. Also, a total of 255,000 on-premises rat poisoning was accomplished during the year with only local funds.

The DDT dusting program was followed by a decrease, from the previous year's total, of 1,500 reported human typhus cases in the areas dusted, a reduction in incidence of 45.3 percent. The Oriental rat flea, *Xenopsylla cheopsis*, was reduced by 84 percent following dusting, and typhus fever in rats decreased by more than 33.7 percent. In addition, all rat extoparasites were reduced by 53 percent as a result of dusting with a 10-percent concentration of DDT.

Training.—The Savannah and Atlanta field training stations continued operations, and other field stations were organized in Albany and Columbus, Ga., and in Topeka, Kans. Three hundred persons were given training and field experience at these stations. The field training courses included Sanitary Engineering, 12 weeks; Primary Sanitation, 12 weeks; Advanced Sanitation, 12 weeks; Environmental Control Procedures for Foreign Trainees, 4 weeks; Evaluation of DDT Dusting and Murine Typhus Control, 1 week; Rodent-Borne Disease Control, 6 weeks; Control of Malaria and other Mosquito-Borne Diseases, 4 weeks; Fly and Insect Control, 2 weeks; Mobile DDT Demonstration, 3 days; Practical Health Department Records Training, 8 weeks; Public Health Education, 12 weeks; and Industrial Hygiene (in cooperation with the Georgia School of Technology), 12 weeks.

Cooperative programs were organized for field training of more than 50 foreign students attending universities in this country under the auspices of the Rockefeller Foundation, the Institute of International Affairs, the State Department, and the Office of International Health Relations of the Public Health Service.

A 3-week orientation course for newly commissioned Service officers was organized in cooperation with the Division of Commissioned Officers. Four 6-week courses in the laboratory diagnosis of parasitic diseases were given during the year to 71 students from 29 State health departments, Veterans Administration hospitals, Alaska, and Greece. The extension service run in conjunction with this course sent out 4,556 slides of material on malaria, intestinal parasites, blood flagellates, and arthropods for study by former students and others in State and local health department laboratories and in general, Marine, State, and VA hospitals in the 48 States, the District of Columbia, Alaska, Puerto Rico, and Mexico. It is estimated that 15 persons examined each slide. An additional 197 sets of test slides on malarial unknowns were distributed to technicians to help them check their diagnostic ability.

The audio-visual program expanded during the year to a point where, instead of being used solely as an aid to CDC training activities, it was able to furnish useful cooperation to other CDC and Public Health Service divisions, other governmental agencies, and schools of public health and medicine.

Films are being produced by CDC for the Veneral Disease Division on a reimbursement basis, and plans have been completed to extend this program to other interested divisions of the Service.

During the year, a total of 11 motion pictures was released by the Center; 7 on malaria, 1 on sanitation, 1 on tropical disease, and 2 on general medical subjects. Film strip releases totaled 27; 17 on malaria, 3 on typhus, 2 on tropical diseases, 1 on sanitation, 1 on rabies, 1 on trichinosis, and 2 on general medical topics. Four slide series and three exhibits for scientific meetings were also prepared.

More than 1 million pieces of literature on training and professional and technical subjects were distributed during the year by the Center to the 48 States, the District of Columbia, the territorial possessions of the United States, and almost every foreign country.

New publications brought out during the year included four quarterly CDC bulletins; the annual report of CDC activities for the 1946 fiscal year; a CDC brochure; an orientation and training manual entitled The Organization and Functions of the United States Public Health Service; a film catalog; a schedule of field training programs; a Rat-borne Disease Manual for use in typhus control; and a Mite Atlas. Handbooks on DDT Residual Spray Operations and on Larviciding, were revised, and 50 manuscripts by CDC personnel were cleared for publication in scientific and technical journals and for presentation at scientific meetings.

Epidemiological aid.—Assistance, in the form of loans of epidemiology teams and mobile laboratories, was given to State health departments, at their requests, during epidemics of diarrhea in Mississippi, Alabama, Georgia, and Ohio.

The Center continued its fly-control program in Texas, in cooperation with the National Institute of Health, by sending an epidemiology team to that State to determine the incidence of *E. histolytica* and other intestinal parasites in DDT-sprayed and unsprayed areas. An epidemiologist conducted surveys of ringworm of the scalp in North Carolina, Georgia, and Florida, and set up control and treatment procedures for the disease. Epidemiological statistical assistance was furnished to CDC field projects and to several State health departments through the establishment of methods and forms for collecting information and through participation in the collection, processing, analyzing, and interpretation of epidemiologic data.

The CDC laboratory stained and examined for malarial parasites approximately 30,000 blood films from Puerto Rico, Arkansas, Mississippi, North Carolina, and Jamaica, British West Indies. More than 1,000 diagnostic examinations for parasites, clinico-pathological conditions, and identification were made of material submitted by State and local health departments, CDC, and other clinics.

Investigations.—Neurotropic viruses were studied at Montgomery, Ala., animal passage being used to maintain strains of western and eastern equine encephalomyelitis, St. Louis encephalitis, and Lansing polio virus. Neutralization tests on human sera were made for the several encephalitides mentioned, as well as for mumps and lymphocytic choriomeningitis. Serological work included 16,127 complement-fixation tests for human typhus, 15,988 tests for rat typhus, approximately 600 tests for spotted fever, and more than 1,000 tests for Q fever.

A cooperative project on fly dysentery control with the National Institute of Health was carried on from headquarters in Pharr, Tex. It covered nine towns in Texas, five of which were sprayed with DDT. Results to date indicate a highly effective reduction in numbers of the general fly population. Positive stool cultures for dysentery (salmonella and shigella) from children under 2 years of age in treated towns were approximately only one-third those obtained in the untreated towns. Efforts are now being directed toward devising the most economical and effective methods of fly control applicable under varying conditions and environments.

Studies of the mosquito vectors of encephalitis are being conducted in cooperation with the Hooper Foundation of the University of California to determine the most efficacious means of controlling encephalitis transmission to humans. The breeding places, flight ranges, feeding habits, and other characteristics of mosquito vectors of the disease are being investigated. The bird reservoirs of encephalitis are also being determined and their habits studied.

Results of the study of malaria directed from Manning, S. C.—an endemic area—during 1947 and the previous year indicate that there was a lower incidence of the disease in DDT-sprayed as opposed to unsprayed areas. Malaria throughout the entire region decreased to such an extent during 1947 that much of the statistical data obtained was difficult to evaluate. The project is to be maintained as a malaria observation post, and the intensive thick-film blood survey will be continued for the purpose of determining malaria trends.

One complete year's investigation of the effects on the incidence of typhus fever of DDT dusting and rat poisoning in several counties in southern Georgia has been concluded. Data show a distinct reduction in cases of human typhus in the two counties dusted and in the one county having a rat poisoning program. There was a marked typhus increase, on the other hand, in the check county in which no control operations were undertaken. These results are consistent with the general picture of typhus operations throughout the country. The project is being continued for another full year to rule out chance factors.

During the 1946 poliomyelitis season, methods and equipment were developed for rapid and efficient fly control in studies carried on in Montgomery and Florence, Ala. Best results were obtained with the use of DDT thermal-aerosol spray by planes. It is planned to apply the methods developed to three areas during the 1947 polio season.

In the CDC laboratory in Atlanta, research was undertaken to evaluate amoeba culture media, amoeba counting techniques, use of bacteriostatic agents in cultures of amoeba, staining and concentration techniques, false positives resulting from mass staining of malaria smears, improved methods of mounting fecal specimens for shipment, and the use of the phase microscope as an aid in the diagnosis of intestinal parasites. The laboratory continued collecting specimens of intestinal, blood, and tissue parasites for training purposes and for a reference museum.

Malaria field studies are being continued in Newton, Ga., in cooperation with Emory University, to measure as many factors related to the occurrence of malaria as possible. Observations are being made on malaria morbidity, anophelism, and attendant physical factors which influence them. It is anticipated that these investigations will provide data on malaria trends useful for guidance in control programs.

The Technical Developments Laboratory at Savannah, Ga., developed and evaluated chemical agents for the control of arthropods and helminths of public health importance, and studied chemical factors relating to communicable disease control. New and improved equipment for use in control operations were designed, built, and tested, and control procedures were devised and tried out in the field.

Other study projects, on which the CDC and the National Institute of Health collaborated, were continued during the year at Memphis, Tenn., and Columbia, S. C. At Memphis, the effect of a newly developed DDT larvicide on mosquito breeding was further investigated; while at Columbia, research went ahead on the degree of infectivity to native mosquitoes of malaria and other tropical diseases acquired outside the continental limits of the United States.

Plague Suppressive Measures

During the past year, plague was found among rodents in Arizona, Kansas, Oregon, Texas, Washington, and Hawaii. It was also reported in California by the State board of health.

The foci in Kansas and western Texas apparently resulted from the spread of infection from more westerly locations. Near Yakima, Wash., the disease was centered in an agricultural section of relatively dense population 150 to 200 miles west of the rural districts in which infected animals had been found during former years.

A survey was made of the Hunter Liggett Military Reservation near King City., Calif. Twenty thousand animals and their parasites were collected and examined without finding one infected specimen. Antiplague operations were carried on at this reservation during previous years because infected animals or parasites were collected from widely scattered locations within it. The results of the recent survey suggest that intensive rodent control measures which are repeated annually for 2 to 3 years will suppress plague and may eliminate it in rural locations.

Surveys were continued with the cooperation of local health authorities in all principal ports of the Pacific coast. Consultative services of trained operators were made available to these authorities and technical examinations of rodent and flea collections were undertaken for them.

Field surveys for the detection of plague in rodents were extended to include the range of the cotton rat and the allied rice rat, which reaches to the Atlantic coast and the Gulf of Mexico. Laboratory tests showed that plague could be readily transmitted to these animals through fleas, and that they appeared to have little resistance to the infection. If the disease were introduced under natural conditions, it seems probable that it might be spread from western Texas to the eastern seaboard.

The manner of the perpetuation of plague among animals in northern climates which hibernate during the winter has been, for some time, a matter of speculation and hypothesis. There has been, however, no direct evidence from which conclusions might be drawn. Studies completed this year afford evidence that an animal may be inoculated with the disease while in hibernation and develop the infection in acute septicemic form upon awaking 4 months later. Proof has also been obtained that infected fleas attached to a squirrel before it enters hibernation may live with it during the period of its 4-month sleep without infecting it, only to transmit the infection to the animal when the latter leaves its hiding place at the end of that period.

Interstate Spread of Communicable Disease

Work of district sanitary engineering personnel in preventing the spread of communicable diseases is described under section for the Sanitary Engineering Division.

Veterinary Public Health Section

This section, working with a staff of five public health veterinarians, placed special emphasis during 1947 on investigations of the following diseases which can be communicated to man from animal reservoirs: rabies, brucellosis, and salmonellosis. It also furnished consultation services to 23 States, at their request, on matters relating to veterinary public health and assisted the Pan American Sanitary Bureau in controlling equine encephalomyelitis in Panama.

The section collaborated with the American Veterinary Medical Association, the Bureau of Animal Husbandry of the Department of Agriculture, and other interested governmental agencies and private individuals in making plans for a Nation-wide rabies eradication program. The key points in this program include control of vagrant dogs, immunization of all dogs and animal pets against rabies, reduction of wild-animal populations among which rabies has become established, increased availability of laboratory diagnostic services, and establishment of a system of prompt reporting of animal rabies to State authorities and, through them, to the Public Health Service.

As a part of this general program for the eradication of rabies, the section carried on its own rabies investigation project during the year. The efficacy of canine rabies vaccine was tested and the work of previous investigators in the field was reviewed. On the basis of these studies, it was determined that canine rabies vaccine is 90 percent effective when used in single doses of 5 cubic centimeters each and that three such doses, injected a week apart, are nearly 100 percent effective in protecting dogs against rabies.

Of almost 2 million dogs vaccinated against rabies by State and local health agencies during the calendar year 1946, none developed the disease from the vaccination itself and less than 0.01 percent of them contracted it through natural exposure. The best available data on the value of such immunization indicates that rabies occurs 10 times as often in an unvaccinated canine population as in one which has been vaccinated.

Two States, Indiana and Utah, requested assistance in controlling human brucellosis. In connection with these projects, a series of 14,000 human blood samples was taken. It was found that 2.1 percent of them contained agglutinins characteristic of brucellosis. It was further discovered that there was a close correlation between persons who lived on farms where animals were infected with brucellosis and persons whose blood samples showed positive agglutination titres.

The results of these investigations were a contributing factor to the adoption by the Utah Legislature of a law providing for the pasteurization of all milk sold in the State. Utah is thus far the only State with such a law on the statute books. In Indiana, the legislature was stimulated by these studies of bruccellosis incidence to set up a special commission of agricultural and health authorities charged with investigating the importance of the animal-disease problem in the State and offering recommendations to the governor on the basis of their findings.

Since the eradication of brucellosis among humans is dependent on its elimination among animals, it will not disappear quickly.

However, if certain measures are taken its spread to man can be controlled. Some of these measures, which were suggested by the personnel of the section to local authorities in Indiana and Utah as essential to the brucellosis control program, are pasteurization of all milk and milk products such as cheese, butter and ice cream; processing of all meat products under veterinary supervision; and proper instruction of farm residents, agricultural workers, and employees of the meat packing industry on procedures for guarding themselves against the disease.

The importance of salmonellosis as a public health problem was increasingly recognized during the year. Considerable evidence was found that many species of animals in contact with man can carry or be infected by salmonellosis. Sixteen types of salmonella organisms were isolated in dogs, and some of these types were also found in infants, children, and adults in the same communities who were suffering from gastroenteritis.

At the close of the fiscal year, 14 States had veterinary public health programs operating. These were in various stages of organization, ranging from a unit with a one-man staff to one with divisional status within the State health department.

Technical Assistance on Medical Care

Technical assistance in the reorganization and administration of medical care programs already in operation was rendered during the year, at their request, to various State public health agencies and voluntary community groups.

In West Virginia, a commissioned officer of the Service has been assigned to work in close cooperation with the State Health Department on several medical care projects which had been developed in the State. Aid was given California in connection with its disability insurance program, and the State of Washington was helped by the division in the development of administrative plans for its system of comprehensive medical care for the needy.

Among the community organizations which received advisory services with respect to similar programs, were rural groups in Texas, industrial groups in New York, and university groups in Minnesota and Michigan.

Venereal Disease Division

Veneral disease control progressed during the fiscal year 1947 to a point where, with treatment having attained a new high degree of efficacy, it was evident that future progress in reducing the incidence of venereal disease, particularly of syphilis, depends largely on speeding up and extending the case-finding process.

It also was apparent that emphasis on in-patient treatment of syphilis reached its peak during 1947. Increasing application of outpatient intensive treatment schedules by the private physician in his office, or by physicians in clinics, marked the beginning of a major era in the history of modern therapy.

Morbidity and Mortality Trends

Several significant, consistent trends in venereal disease control conditions are apparent. A number of these are discernible when civilian cases are combined with cases for the armed forces to determine over-all trends for the total population.

Specific trends.—The year-to-year data for the following trends are shown in tables 1 to 4 which follow:

A steady increase in the number of cases of gonorrhea reported, from 193,000 cases in 1941 to 410,000 in 1947.

A gradual doubling of the number of primary or secondary cases of syphilis reported per 1,000 total population from 0.564 in 1941 to 0.928 in 1947.

A virtual halving of the number of late and late latent cases of syphilis reported per 1,000 total population from 1,517 in 1941 to 0.857 in 1947.

A steady reduction in the syphilis mortality rate from 15.9 per 100,000 poulation in 1938 to an estimated 9.3 for 1946.

A gradual reduction of infant mortality rates due to syphilis per 100,000 population in 1938 to an estimated 9.3 for 1946.

A steady reduction in the number of congenital syphilis cases reported from an estimated minimum of 18,000 cases in 1941 to 14,000 in 1947.

A reduction in admission rates to mental hospitals due to syphilis per 100,000 population from 7.3 in 1939 to 5.7 in 1945.

Conclusions.—Some of the conclusions that may be drawn from these trends are:

Contrary to some impressions that may have existed during and after the war, there has been no abrupt increase for the population as a whole in the number of early syphilis cases reported.

TABLE 1.—*Syphilis minimum annual incidence estimates, 1936–47*

Year	Method of calculation	Civilian and armed forces			Continental United States civilians		
		Total	Acquired	Congenital	Total	Acquired	Congenital
1936–37	Survey	----------	----------	----------	----------	259,000	----------
1940–41	Survey	----------	----------	----------	----------	173,000	----------
1941	Morbidity reports	202,000	184,000	18,000	195,000	177,000	18,000
1942	do	223,000	206,000	17,000	209,000	192,000	17,000
1943	do	276,000	260,000	16,000	247,000	231,000	16,000
1944	do	259,000	245,000	14,000	215,000	201,000	14,000
1945	do	246,000	234,000	12,000	190,000	178,000	12,000
1946	do	263,000	251,000	12,000	214,000	202,000	12,000
1947	do	252,000	240,000	12,000	226,000	214,000	12,000

The gradual increases that have occurred in the numbers of cases of gonorrhea and early primary and secondary syphilis reported are undoubtedly attributable to some extent to improvement in efficiency of case-finding; the increases have accompanied an increase in the population.

The decreases in the numbers of cases of late syphilis reported and the reduction in insanity and mortality caused by syphilis probably reflect efficient early case-finding and treatment in previous years.

A large proportion of new syphilis infections are not discovered and brought to treatment soon enough after their acquisition to reduce substantially what appears to be a nearly uniform rate of spread of the disease—approximately 1.7 early syphilis cases per 1,000 total population reported for each of the last 6 years.

An increasing proportion of syphilis infections are discovered and treated soon enough after their acquisition to prevent such disastrous results as congenital syphilis, insanity, and death.

TABLE 2.—*Diagnosed cases of venereal diseases reported for the first time, fiscal years 1941–47* [1]

Year	Total	Syphilis					Gonorrhea	Other venereal diseases		
		Primary and secondary	Early latent	Late and late latent	Congenital	Not stated		Chancroid [2]	Granuloma inguinale	Lymphogranuloma venereum
				IN STATES AND TERRITORIES						
1941	479, 926	68, 319	108, 864	201, 939	17, 952	83, 252	193, 032	3, 278	648	1, 347
1942	484, 408	78, 556	118, 300	206, 472	18, 921	62, 159	218, 554	5, 649	1, 278	1, 915
1943	576, 097	84, 629	150, 703	256, 908	17, 942	65, 915	280, 923	8, 502	1, 750	2, 408
1944	472, 725	80, 316	125, 379	208, 830	15, 707	42, 493	307, 504	8, 029	1, 771	2, 905
1945	368, 149	78, 649	104, 930	146, 475	14, 730	23, 365	293, 694	5, 623	1, 869	2, 699
1946	370, 902	96, 222	110, 652	129, 080	14, 181	20, 767	372, 594	7, 333	2, 216	2, 643
1947	382, 425	107, 772	111, 499	124, 551	14, 127	24, 476	409, 793	9, 356	2, 413	2, 740
				IN CONTINENTAL UNITED STATES						
1941	477, 841	67, 958	108, 658	201, 190	17, 592	82, 443	191, 306	3, 265	647	1, 345
1942	472, 245	75, 704	116, 433	202, 216	16, 924	60, 968	212, 384	5, 426	1, 271	1, 888
1943	564, 918	82, 230	148, 909	252, 995	16, 173	64, 611	275, 648	8, 333	1, 746	2, 391
1944	458, 199	78, 418	122, 390	203, 396	13, 576	40, 419	300, 585	7, 861	1, 758	2, 857
1945	356, 315	77, 007	101, 135	142, 731	12, 339	23, 103	284, 994	5, 481	1, 846	2, 625
1946	360, 918	94, 957	107, 336	125, 836	12, 106	20, 683	364, 853	7, 058	2, 204	2, 593
1947	373, 296	106, 594	107, 755	122, 257	12, 284	24, 406	400, 659	9, 039	2, 403	2, 688

---

[1] Known military cases are excluded.

[2] Includes some unspecified "other venereal diseases."

TABLE 3.—*Trend of syphilis morbidity reporting, United States civilians and armed forces, fiscal years 1941–47*

Year	Reported cases					Rate per 1,000 population				
	Total including not stated	Primary or secondary	All early syphilis (primary-secondary-E. L.)	Congenital	Late and late latent	Total including not stated	Primary or secondary	All early syphilis (primary-secondary-E. L.)	Congenital	Late and late latent
CONTINENTAL UNITED STATES CIVILIANS										
1941	477, 841	67, 958	176, 616	17, 592	201, 190	3. 623	0. 515	1. 339	0. 133	1. 525
1942	472, 245	75, 704	192, 137	16, 924	202, 216	3. 579	. 574	1. 456	. 128	1. 533
1943	564, 918	82, 230	231, 139	16, 173	252, 995	4. 388	. 639	1. 796	. 126	1. 965
1944	458, 199	78, 418	200, 808	13, 576	203, 396	3. 607	. 617	1. 581	. 107	1. 601
1945	356, 315	77, 007	178, 142	12, 339	142, 731	2. 805	. 606	1. 402	. 097	1. 124
1946	360, 918	94, 957	202, 293	12, 106	125, 836	2. 703	. 711	1. 515	. 091	. 942
1947	373, 296	106, 594	214, 349	12, 284	122, 257	2. 648	. 756	1. 520	. 087	. 867
TOTAL CIVILIAN AND ARMED FORCES										
1941	484, 647	74, 764	183, 422	17, 592	201, 190	3. 654	0. 564	1. 383	0. 133	1. 517
1942	486, 386	89, 845	206, 278	16, 924	202, 216	3. 631	. 671	1. 540	. 126	1. 510
1943	594, 021	111, 333	260, 242	16, 173	252, 995	4. 379	. 821	1. 919	. 119	1. 865
1944	501, 947	122, 166	244, 556	13, 576	203, 396	3. 654	. 889	1. 780	. 099	1. 481
1945	411, 840	132, 532	233, 667	12, 339	142, 731	2. 965	. 954	1. 682	. 089	1. 027
1946	409, 531	143, 570	250, 906	12, 106	125, 836	2. 917	1. 023	1. 787	. 086	. 896
1947	399, 067	132, 365	240, 120	12, 284	122, 257	2. 797	. 928	1. 683	. 086	. 857

TABLE 4.—*Mortality and insanity*

Year	Syphilis mortality rates per 100,000 population	Infant mortality rates due to syphilis per 1,000 live births	Admission rates to mental hospitals due to syphilis per 100,000 population
1933	15. 1	0. 79	6. 9
1934	15. 9	. 74	7. 0
1935	15. 4	. 70	7. 0
1936	16. 2	. 73	7. 1
1937	16. 1	. 69	7. 1
1938	15. 9	. 63	7. 2
1939	15. 0	. 57	7. 3
1940	14. 4	. 53	6. 3
1941	13. 3	. 41	6. 5
1942	12. 2	. 30	6. 4
1943	12. 1	. 25	6. 0
1944	11. 3	. 27	5. 8
1945	10. 7	. 25	5. 7
1946 (estimated)	9. 3	---------------	---------------

Clinic and Epidemiologic Activities of Health Departments

During the fiscal year, health departments continued the trend towards emphasis of case-finding, diagnosis, and referral to in-patient care. Health department clinics gave approximately 1,500,000 diagnostic observations to persons in order to detect the presence or absence of venereal disease. About one-third of these observations resulted in the diagnosis of at least one venereal disease. Among the previously untreated syphilis infections found by clinics were approximately 57,000 primary and secondary, 56,000 early latent, 8,000 congenital, and 38,000 late syphilis cases. About 70 percent of the primary and secondary and 50 percent of the early latent cases without previous treatment were referred to in-patient care for therapy. Less than 5 percent of the approximately 300,000 gonorrhea cases diagnosed by clinics were referred for in-patient care. Clinics (excluding rapid treatment centers) obtained on the average about one contact from each primary and secondary syphilis case diagnosed.

Appropriations, Allocations, and Budgets

For the fiscal year there was appropriated by the Congress a total of $17,426,300 for venereal disease control, including an original appropriation of $16,628,000 and supplemental appropriations under Public Law 390 of $258,400, Public Law 474 of $23,400, and Public Law 165 of $516,500.

Of these appropriations, $8,764,400 was allocated to the States and Territories, $6,681,882 was expended for maintenance and operation of rapid treatment centers and for project grants for other in-patient care, and $1,980,018 was utilized for administration of the program, clinical and laboratory research, demonstrations, scientific information, public and professional education, and other control activities.

Cooperation With State Health Departments

Practically all of the activities of the Venereal Disease Division were conducted in cooperation with State and local health departments, and many were in cooperation also with private physicians, medical schools, hospitals, and other nongovernmental groups. Cooperative activities included the rapid treatment center program, community-wide intensive public education and case-finding programs, research, and evaluation studies.

Mass Case-finding Demonstrations

During the fiscal year, the Venereal Disease Division continued to cooperate with State and local health departments and private physicians in intensive, large-scale programs of venereal disease case-finding, utilizing public education. Five such projects discovered 3,110 cases of syphilis and 4,546 cases of gonorrhea.

New elements entering into these projects included an attempt to intensify contact investigation during the course of a program of mass blood testing; a program of public education designed specifically to spread an awareness of the symptoms of venereal disease in order to encourage infected individuals voluntarily to seek diagnosis; a program in which mobile clinics were used to examine persons on large plantations in the rural South; and a plan to intensify and speed up the process of contact investigation.

These demonstration projects were conducted in Macon, Bibb County, Ga.; in Augusta, Richmond County, Ga.; in Louisville, Jefferson County, Ky.; in Leflore County, Miss.; and in Pulaski, Garland, and Jefferson Counties, Ark. In Macon and Augusta, the projects were conducted in cooperation with the Tuberculosis Control Division, and tests for tuberculosis and venereal disease were given at the same time.

Rapid Treatment Center Program

State-wide in-patient treatment services were provided in 42 States, the District of Columbia, and the Virgin Islands. These services were made possible through special Federal grants supplementing funds made available by the States for this purpose, Federal grants amounting to 75 percent of the total cost. Allotments were made to 65 individual projects, comprising 36 centers with bed capacities ranging from 25 to 1,000, and to 29 bed contract plans in which syphilis patients are referred to general hospitals by health departments.

During the year 181,320 patients were admitted to rapid treatment centers. This is a 3-percent increase over the number admitted in the previous year.

Syphilis patients comprised an even greater proportion of total admissions in 1947 than in the previous year. Whereas, in 1946, 68 percent were admitted for treatment of syphilis, 85 percent of the admissions in 1947 were syphilitic patients. Gonorrhea admissions continued on the decline, amounting to 5 percent of admissions as compared with 18 percent in the previous year. Admissions for chancroid and granuloma inguinale were 3 percent of the total; 2 percent were admitted for observation only; and 5 percent were found to be not infected with any venereal disease after admission.

Of the total syphilis admissions to rapid treatment centers, 40 percent were in the primary or secondary stage of the disease, 36 percent were early latent, 7 percent were admitted for central nervous system involvement, 4 percent were congenital syphilis, and 13 percent were in the late or late latent stages.

Of total admissions for all conditions, 32 percent were white and 68 percent were nonwhite, 49 percent were males and 51 percent were females. Of the white patients, 53 percent were males and of the nonwhite, 46 percent. The proportion of nonwhite admissions increased 7 percent over the previous year, and the proportion of females increased 4 percent.

Age ranges of all patients admitted to rapid treatment centers were: Under 20 years, 25 percent; 20–24 years, 31 percent; and 25 years or over, 44 percent. Among white females, admission age ranges were: Under 20 years, 28 percent; 20–24 years, 29 percent; and 25 years or over, 43 percent. Age ranges of nonwhite females were: Under 20 years, 35 percent; 20–24 years, 30 percent; and 25 years or over, 35 percent. Age ranges for white males were: Under 20 years, 12 percent; 20–24 years, 31 percent; and 25 years or over, 57 percent. Age ranges for nonwhite males were: Under 20 years, 20 percent; 20–24 years, 34 percent; and 25 years or over, 46 percent. While there was no change in the age distribution of total admissions in 1947 as compared with 1946, a greater proportion of the male patients admitted in 1947 were less than 25 years of age as compared with the previous year; whereas, the proportion of females more than 25 years of age admitted during 1947 was higher than in the previous year.

The average cost of treating patients in rapid treatment facilities was approximately $5.25 per day. The cost of personal services and of subsistence items increased during 1947 as compared with the previous year. Increased costs of these items were partially offset by a decrease in the cost of penicillin.

Therapy Evaluation

The current evaluation of penicillin schedules employed in rapid treatment centers for the treatment of early syphilis was continued. A cumulative report showed that, among patients treated for secondary syphilis, the highest re-treatment rate by the 15th month post-treatment occurred following schedules utilizing 600,000 units of penicillin—44.1 percent where the aqueous penicillin was given in 42 hours plus 8–10 hours of fever sustained at 104°–106°; 32.9 percent where aqueous penicillin alone was given in 7½ days. The lowest percentage of secondary cases re-treated by the 15th month post-treatment occurred following schedules utilizing 1,200,000 units of aqueous penicillin with conjunctive therapy—14.2 percent with the addition of 3 sessions of fever of 3 hours each; 15.1 percent with the addition of 5 injections of arsenoxide and 3 injections of bismuth. The schedule utilizing 4,800,000 units of penicillin in a peanut oil and beeswax suspension given over an 8-day period showed only a slightly higher re-treatment rate by the 15th month post-treatment than 1,200,000 units of aqueous penicillin plus conjunctive therapy.

In a study of the treatment of pregnant women, congenital syphilis was found in only 3.2 percent of the live infants born of women treated for infectious syphilis with penicillin during pregnancy. Results also showed that it made very little difference at what time during pregnancy treatment was given.

The evaluation research project, known as the Blue Star Study, has continued to accumulate selected syphilis patients who will be followed up for a minimum of 5 years to determine the effectiveness of certain schedules of penicillin. This study, which proposes to maintain a quality of follow-up approaching 100 percent, also will be used as a statistical device to determine the validity of the present method for evaluating schedules of therapy.

Several rapid treatment centers located in metropolitan areas are participating in the program. Each patient in the study is selected on the basis of certain diagnostic criteria and personal factors, including permanence of residence in local area. Selection of cases is the mutual responsibility of the medical officer in charge and a research investigator. It is the duty of the investigator to see that every patient returns to the center for each scheduled post-treatment observation which includes a physical examination as well as a blood test. It is expected that findings of the physical examination, correlated with the serologic pattern, and epidemiologic evidence will aid the analyst in differentiating between relapse and reinfection.

Steps are being taken to insure comparability of serologic and spinal fluid reports by standardization of all laboratories testing specimens of Blue Star patients.

Program Evaluation

Diverse and extensive program evaluation activities were conducted during the fiscal year to measure past achievement in venereal disease control and to determine future action. Evaluation of the broad aspects of the venereal disease control program has been based on three major considerations: (1) Trend of incidence and prevalence; (2) trend of disastrous outcome of syphilis and (3) current appraisal of health department activities in diagnosis, referral to in-patient care, admissions to treatment, and contact investigation.

Advice and consultation have been provided to State health departments regarding technics of data collection and tabulation for required reports, including form design, special cooperative studies of prenatal and premarital blood test trends, central registry operations, and special studies in technics for evaluation of contact investigation.

Data were collected and summarized in final form for 24 statistical projects covering a wide range of subjects related to incidence, prevalence, mortality rates, insanity rates, age at death; and studies related to the finding, diagnosing, reporting, and treating of syphilis, gonorrhea, and the other venereal diseases. Reports of some of these studies have been or will be published in the Journal of Venereal Disease Information and other scientific journals.

Research, Development, and Professional Training

The United States Public Health Service Venereal Disease Research Laboratory at Staten Island, N. Y., continued the yearly evaluation of serodiagnostic tests for the Nation. It performed thousands of serologic tests, distributed serologic test reagents to health departments and hospitals, and continued the training of a large number of laboratory workers for health departments throughout the country, as well as a number of representatives of other nations.

In fulfilling the plan of reorganization of the laboratory, the scientific structure has been enlarged through the addition of new science units, and the general scope of the investigation program has been broadened. The availability of adequately trained scientific personnel has improved in all branches with the exception of chemistry. The productive capacity of the laboratory has been curtailed because of a shortage of biochemists.

In research conducted at the laboratory, the study of the penicillin treatment of syphilis has passed into its fourth and probably final year. Studies continue to show that, as experience broadens and as the period of post-treatment observation lengthens, no factors are revealed which detract from the great promise indicated in the early reports. The study of syphilis serology continues to be a major activity. A series of new problems have been presented by the discovery of cardiolipin and its use as an antigen factor, by the more exacting requirements which have been placed upon serology by the penicillin therapy of syphilis, and by the increase in the prevalence of patients displaying a nonspecific positive serologic test for syphilis. The search for new antibiotic substances has been expanded. The productive capacities of bacterial, mycological, and botanical species are being canvassed, and the work will be accelerated as soon as facilities will permit. Newly developed products are assayed in a broad spectrum involving 20 bacterial pathogens and 3 viruses. In addition, each product and each fraction developed in the process of chemical extraction of the crude material is tested as to ability to inhibit rapidly dividing cells in tissue cultures.

A branch laboratory has been established in Guatemala City, Guatemala, through a cooperative arrangement with the Pan American Sanitary Bureau and the Guatemala Public Health Service. Studies will be carried out dealing with phases of the venereal disease research which require a static population group. The influence of tropical and other environmental circumstances upon the production of a positive serologic reaction in individuals probably not infected with syphilis constitutes a basic research which will have far-reaching significance.

At the United States Public Health Service Medical Center, Hot Springs National Park, Ark., clinical investigations were made on the use of streptomycin in the treatment of granuloma inguinale; also studied were the results of penicillin therapy in neurosyphilis, and the treatment of nonspecific urethritis. A stable serum was prepared as a standard for colloidal, total protein, and serologic procedures. The preparation of diagnostic antigen was prepared from yolk-sac cultures of Donovania granulomatis.

A number of cooperative programs were carried on with the State and local health departments. During the year four veneral disease training courses for local health department nurses were held. In a contact investigation study, intensive contact interviewing of infectious syphilis patients from three counties was done in the medical center, with local follow-up of the contacts of these patients.

The Laboratory of Experimental Therapeutics of the United States Public Health Service and the Johns Hopkins School of Hygiene initiated, continued, and completed many research studies in the fields of antibiotics, pharmacology, biochemistery, synthetic organic chemistry, bacteriology, experimental syphilis, and therapeutics. These research projects include studies of optimum blood levels of penicillin for the treatment of various bacterial infections; maintenance of desired blood levels of penicillin; possible prophylactic use of penicillin; the relative activities of the penicillin species in the treatment of syphilis; therapy enhancement effects of impurities in crude penicillin; the synthesis of compounds related to penicillin; the treponemicidal activity of bacitracin; the efficacy of BAL in the treatment of arsenic, antimony, and lead poisoning; the chemotherapy of leishmaniasis and schistosomiasis; growth factors which may permit cultivation of the pathogenic *T. pallidum;* antibody response to the various strains of treponema in rabbits; chemical structure and stability of metalo-organic compounds; the chemical structure of arsenoso compounds; and the pharmacology of penicillin.

The Reynolds Research Laboratory, University of North Carolina, in cooperation with the United States Public Health Service, continued research on immunity in experimental syphilis. The quantitative measurement of immunity following infection is being continued. Studies are nearly completed on the efficacy of insoluble and soluble bismuth compounds as adjuvants to penicillin in the treatment of experimental syphilis.

The Institute for the Study of Venereal Disease, University of Pennsylvania, in cooperation with the United States Public Health Service, conducted clinical and laboratory research concerning clinical, serologic and morphologic aspects of treatment-resistant syphilis, nonspecific positive serologic tests for syphilis, penicillin therapy in the various stages of syphilis, electron microscopic investigations, epidemiologic studies and virus studies related to urethritis. The institute also conducted experiments in teaching methods, and presented in its course of health and human relations a workshop for nursing consultants, a 3-month course in the epidemiology of venereal disease, and other courses for Army, Navy, and Public Health Service personnel, for nurses, nursing instructors, and students of public health. The institute also maintained a center for instructive, consultative, and advisory services for various state and national governmental and nongovernmental agencies and for physicians and other health workers in the United States and from abroad.

A study of the community control of gonococcal infection, including evaluation of therapy, community education, and contact investigation, was continued in Glynn County, Ga., in cooperation with the Glynn County Board of Health. The project was terminated June 30, 1947.

The Washington University Medical School at St. Louis, Mo., continued the program of training and research in a study of technics of interviewing venereal disease patients and teaching effective technics to medical students and others concerned with venereal disease case-finding. This was concluded on July 1, 1947.

The National Advisory Serology Council

The name of the Committee on the Evaluation of Serodiagnostic Tests for Syphilis of the United States Public Health Service was changed to the National Advisory Serology Council at a meeting held in Washington, D. C., on May 22, 1947. Subjects considered by the committee included: Cardio-lipin-lecithin antigens; State laboratory surveys of 1946 and 1947; false positive serologic reactions; influence of penicillin therapy upon syphilis serology; optimal reactivity level for serodiagnostic tests; relationship of the Staten Island Laboratory to commercial producers of antigens; and payment of stipend to author-serologists. The minutes of the meeting were published in the September issue of the Journal of Venereal Disease Information.

Seminars

During the fiscal year 1947, the Venereal Disease Division conducted nine meetings of the Venereal Disease Seminar—a series of regional study groups designed to bring to technical and lay workers current information on the various aspects of venereal disease control.

The meetings were held in San Francisco, Calif., Bethesda, Md., Memphis, Tenn., Salt Lake City, Utah, Indianapolis, Ind., and Dallas, Tex. Average attendance was 75 persons per meeting. Seventy-two original papers and reports, covering research, diagnosis, therapy, and practical problems in control, were presented to the various seminar groups. A digest of proceedings was distributed to all seminar participants following each meeting. The contents and index of the Seminar Digest, listing participants in the first 12 meetings of the Seminar and the subjects discussed, were published and released for distribution June 26, 1947.

Scientific Publications

Increased efforts were made through the Journal of Venereal Disease Information to provide a greater amount of technical knowledge to health departments, the medical and nursing professions, epidemiologists, laboratory technicians, and all others concerned with the scientific and public health aspects of the venereal diseases. Preliminary steps were taken on a readership survey to determine how the Journal may better serve the interests of effective venereal disease control.

The circulation of the Journal averaged 13,000 per monthly issue, including 7,000 paid subscriptions, of which about 5,000 were those of private physicians. Reprints were made of 25 articles; 1 supplement to the Journal and 1 Venereal Disease Bulletin were published.

Other scientific and technical materials for use by health departments and private physicians were prepared for use in venereal disease control activities. Review and editorial services and library research were made available to health officers and venereal disease control specialists in developing scientific studies. Reports and reviews on all phases of venereal disease control activity were prepared for presentation within and without the division.

Abstracting and Library Services

During the year, the research library with bibliographical and reference service was reorganized and enlarged to meet the growing needs of medical schools and medical societies, health departments, nursing groups, and others engaged in venereal disease work and study. Several thousand pieces of scientific literature were sent out in answer to individual written requests for technical data. Requests were filled from a collection of about 1,000 individual scientific publications. Several thousand abstracts from 350 medical and scientific journals, including foreign publications, were written, classified by subject, cross-referenced, and filed for research purposes. Selected abstracts and references were published in the current literature section of the Journal of Venereal Disease Information.

Clinical Film Library

A venereal disease clinical picture service was established for the acquisition and distribution of a comprehensive library of 1,000 or more clinical pictures, to include photographs and drawings of the visible evidences of venereal disease, and illustrations of other picturable subjects useful to professional venereal disease control personnel and medical schools and libraries, and to authors of medical texts. Medical descriptions accompany each picture. A complete picture-and-data card file is maintained, and a limited number of catalogs containing miniature photographs of all pictures will be available for short-term loan review.

Most pictures are in color and available in loan sets of projection slides. Arrangements are being sought which would permit purchase of individual slides by physicians, medical schools, and health departments for permanent retention.

The division has recently completed cooperative arrangements with the United States Public Health Service Communicable Disease Center at Atlanta, Ga., for production of additional audio-visual technical aids for professional workers and institutions. These technical and teaching aids include pictures of diagnostic, laboratory, and control methods, in the form of motion pictures, slide transparencies, film strips, and scientific exhibit materials.

Education, Extension, and Training

A small extension and training field office was established at New Haven, Conn., to be conducted in cooperation with the Department of Public Health of the Yale University School of Medicine. Its purpose is to explore methods and resources for orientation and training of personnel for health departments.

Extension and training activities for this year included liaison with the American Social Hygiene Association and its affiliates in community organization operations related to venereal disease control; cooperation with the Pan American Sanitary Bureau, the Institute of Inter-American Affairs, and the Office of International Health Relations in planning and arranging itineraries for study of venereal disease control activities by physicians and social workers from numerous foreign countries on government sponsored study fellowships; cooperation with State and local health departments, pharmaceutical manufacturers and other organizations in the development of venereal disease graphic materials and other educational and training devices for public education and personnel training.

In cooperation with the Venereal Disease Education Institute, Raleigh, N. C., the division conducted an evaluation of venereal disease education materials from all the available sources. A technical review committee was appointed, and an annotated and illustrated guide for the selection and use of acceptable materials was published. Two experimental short films, developed for public informational purposes, are to be tested by various State and local health departments throughout the country.

Tuberculosis Control Division

At the end of its third year of operation, the Tuberculosis Control Division extended and expanded its activities in assisting States to control and eventually to eradicate tuberculosis from the population. Although the death rate from this disease continued to decline, and in 1945 reached the lowest level ever recorded in the United States of 40.1 per 100,000, the continued protection of the people assumed greater urgency than ever before. Now in marked retreat, tuberculosis is susceptible to a total assault that will render the disease negligible as a public health problem.

Areas of activity.—In cooperation with State and local health departments, voluntary associations and agencies, private laboratories and corporations, the division has operated within five major areas of activity: (1) Discovery of all tuberculous persons in the United States, (2) medical care for every patient needing treatment, (3) after-care and rehabilitation, (4) protection of the afflicted family against economic distress, and (5) the prevention of tuberculosis. Operation within these areas has been given systematized direction during the year by the employment of 10 techniques, as outlined in the following sections.

Determination of the Extent of the Problem

A decisive and concentrated attack against tuberculosis requires continuous investigation of the tuberculosis problem throughout the country. Population factors such as age, sex, color, geographic distribution, and economic status are correlated with information on disease prevalence and present control measures. Mass chest X-ray surveys, tuberculin testing, and the collection and analysis of mortality, morbidity, and other data provide the facts needed for a progressive control program.

During the year the study of tuberculosis mortality continued in association with the National Office of Vital Statistics. Closely related to this work is the study of tuberculosis as an international problem. A measure of current resources and future requirements for hospitalization of the tuberculous was provided by a census, completed in January, of hospital beds in the United States. An index of hospitals with tuberculosis beds was published.

To increase statistical precision, new reporting and tabulating procedures were instituted for mass radiography projects, and plans were made for a complete revision of chest survey records. As a result of retabulation and analysis of material from 4 years of mass X-ray work, several maps were issued showing the prevalence of tuberculosis among general and selected population groups. An investigation was undertaken to determine the facilities and methods which would be required to X-ray the adult population of the 92 cities with populations of 100,000 or over.

The division conducts extensive medical and statistical studies of rehabilitation and after-care, both exigent objectives in tuberculosis control. In a cooperative project with the Office of Vocational Rehabilitation and the National Tuberculosis Association, sanatoria in six States were surveyed so that the best features of their rehabilitation programs could be incorporated in future plans. Cooperative activities in rehabilitation and after-care will be increased in the coming year.

Grants-in-Aid to States

In fiscal year 1947, the total appropriation to the division was $8,108,643, of which $6,880,000 was allocated for grants-in-aid. This fund was used by the States for the purchase of equipment, employment and training of personnel, case-finding, and follow-up. Relative to last year's expenditure, a larger portion was spent for personnel than for equipment, indicating that State programs are reaching satisfactory levels of development. Throughout the Nation, approximately 570 X-ray units are employed in case-finding activities, and about 3,500 full-time workers are engaged in tuberculosis control. Forty-five States and Territories have full-time tuberculosis control officers.

Cooperation With Private and Official Agencies

In all aspects of tuberculosis control, the division worked cooperatively with the National Tuberculosis Association, National Office of Vital Statistics, Office of Vocational Rehabilitation, Veterans Administration, Rockefeller Institute for Medical Research and other official and voluntary organizations. Projects were instituted in fundamental research and services in order to extend the benefits of a concerted program to the people in their own communities.

The division participated in State control functions, through consultation, demonstrations, and the loan of equipment and professional personnel. Full-time consultants assigned to districts were actively engaged in State tuberculosis work, and two consultants had direct responsibility in the management of State and local programs.

Public health nurses with special training in tuberculosis aided States and cities in case-finding and follow-up activities. Thirty-five nurses are now on duty; 3 at headquarters, 17 with State and Territorial health departments, and 15 in special field projects. In 10 States, nursing consultation service was provided in hospitals. Through State and local tuberculosis associations, the nurses of the division worked to coordinate all control activities within the community.

The division performed radiological services for the Coast Guard, Department of Agriculture, Veterans Administration, and Maritime Commission.

Demonstrations and Services

The division increased the scope of its demonstration program which is designed to show the value of modern techniques in case-finding and follow-up. Twenty photofluorographic demonstration units were in operation at all times, and proved to be efficient, economical instruments for detecting tuberculosis in the early, remediable stages. From July 1946 to May 1947, units owned and staffed by the division made approximately 600,000 screening film examinations. Half of these were in community-wide demonstration surveys of Milwaukee, Wis., and the counties of Gaston, Cleveland, and Wayne, N. C. A number of units were concentrated in Minneapolis, Minn., for a chest X-ray survey to cover the entire adult population. (Appendix table 30 lists X-ray demonstration services to States for fiscal years 1945–47.)

Services in morbidity reporting were rendered to State and local health departments. As a source of information on tuberculosis and related subjects, 17 maps were released and a booklet was prepared on the leading causes of death in 1944.

Because tuberculosis is a chronic, relapsing disease, the follow-up of tuberculous patients and suspects is an essential element in any control program. In Philadelphia, New York, Milwaukee, and Columbus, Ga., the division has undertaken to study serial X-ray films from 5,000 cases of tuberculosis found in mass surveys, and to provide additional follow-up services. Much of this work is done at the Central Cooperative Clinic, Temple University, Philadelphia, Pa.

Through consultation, training, and active participation upon request, the division assists State and local health departments to meet their responsibilities in maintaining current tuberculosis records. During the year, consultation service and assistance in tuberculosis record activities were given to the Veterans Administration and to health departments in 30 States, the District of Columbia, Alaska, and Hawaii. As a further service to health departments, the division prepared a manual entitled State Central Case Record Systems and Local Case Registers for Tuberculosis.

Consultation services regarding medical-social programs were extended to several States, and plans have been made to increase medical-social services in district offices. Twelve thousand copies of the publication, Medical Social Service in Tuberculosis Control, were distributed.

Recruitment and Training of Professional Personnel

To relieve the continued shortage of tuberculosis workers, the division provides training for medical officers, nurses, and photofluorographic operators. Most of these workers are assigned to State and local health departments upon completion of the training courses.

During the year, 29 U. S. Public Health Service medical officers were given special preparation in tuberculosis control, through experience in State and county sanatoria as well as through courses taught by division staff members. In addition, several medical officers were sent to universities on foundation fellowships to receive special training in public health work.

Nursing consultation service was given at Catholic, Syracuse, and Wayne Universities, and two nurses were lent to universities as coordinators of tuberculosis nursing courses. Tuberculosis institutes were held in 11 States.

The division, in cooperation with the Saranac Lake Study and Craft Guild, continued to train photofluorographic operators. The training program comprises a 6-week course at the Guild Photofluorographic School, and 6 weeks of field experience with the Public Health Service. Graduates are employed by the division and by State or local health departments.

Provision of Facilities and Equipment

New photofluorographic machines and techniques were developed at the Electronics Laboratory in Rockville, Md. Equipment perfected by the laboratory was combined with a Schmidt Camera to provide a light-weight photofluorograph with domestic power requirements which may facilitate the examination of organs other than those of the chest. Nearing completion is an automatic machine, adjustable by push-button, for X-raying any part of the human body.

In related studies, the laboratory tested a 666–D fluorescent screen which proved superior to other types because of its high resolving power and low persistence. Equipment was also developed for the mass reproduction of X-ray films.

For greater efficiency and standardization of equipment, 10 photofluorographic units were adapted to 70-mm. roll film. Most of the machines of the division were completely overhauled and 115 repairs were made.

Education of the Public

By agreement with the National Tuberculosis Association, most of the informative material prepared by the division is directed to professional groups. A number of articles of scientific import were published during the year. Most of these appeared in the monthly tuberculosis control issue of Public Health Reports which is distributed to approximately 16,000 tuberculosis specialists and public health authorities. The division consults with the National Tuberculosis Association in the preparation of educational material for the public.

Study of Legislation for Tuberculosis Control

Valuable information on the problem of tuberculosis among nonresidents was provided by special investigations made in States where the problem is acute, such as in Arizona, California, and Colorado. In other studies an evaluation was made of statutes and practices regarding mandatory isolation of the tuberculous. The division prepared a file on State Tuberculosis laws proposed or enacted in 1946–47.

Research

For the improvement of techniques in tuberculosis control, the division conducts extensive investigations in diagnosis and epidemiology, chemotherapy, and prevention.

A study of early tuberculous lesions, begun with the National Tuberculosis Association in 1943, is planned as a long-range investigation. More than 10,000 student nurses in 10 metropolitan areas of the United States are examined semiannually, primarily to study the development and control of minimal lesions, the most frequent finding in mass chest surveys. X-ray films, tuberculin tests and follow-up examinations are provided. Results continue to furnish valuable information on tuberculin sensitivity, pulmonary calcification, and the use of X-rays and tuberculin tests.

One phase of the project is the investigation of nontuberculous pulmonary calcification, which has led to a study of fungus diseases such as histoplasmosis. It was demonstrated in 1945 that a mild subclinical condition, associated with sensitivity to histoplasmin, results in nontuberculous pulmonary calcification. Hence, in addition to tuberculin, histoplasmin and other fungus antigens have been used in testing about 15,000 nurses. Sufficient material has been collected to permit a detailed study of the relation between pulmonary calcification and sensitivity to the fungus tests.

At the division's field laboratory in Kansas City, Mo., about 3,000 school children are tested quarterly in studies of tuberculosis and related diseases. The laboratory has demonstrated that a familial factor influences histoplasmin sensitivity; and an attempt is being made to determine whether conversion to histoplasmin-positive is seasonal. To find the agent of histoplasmin sensitivity, autopsy material, water, plants, and soil are routinely examined.

At Ohio State University about 900 student nurses were studied to learn whether changes occur in blood composition with the development of sensitivity to histoplasmin or tuberculin, and the homes of 6,000 freshmen have been mapped to study the geographic pattern of histoplasmin reactions.

Research in radiology was applied mainly to the problems of mass chest surveys. In consequence of last year's findings, methods are being developed to improve the reading of X-ray films and the classification of results. A board of radiology recommended that all survey films be read independently by at least two interpreters. At the Rockville laboratory, a system is being perfected for measuring film speed in terms of energy. Another project seeks methods of amplifying fluorescent images. If amplification processes in development are successful, they will be of great value in the diagnosis of cancer and heart disease, as well as in tuberculosis control.

Studies in chemotherapy, pursued in conjunction with the Rockefeller Institute for Medical Research, were directed toward discovery of an agent to arrest the tuberculous process, and toward development of improved media for culturing tubercle bacilli.

A crystalline substance from the lichen *Ramalina reticulata* (California Spanish Moss) was found to retard tuberculosis in guinea pigs. Successful preliminary investigation has led to arrangements for thorough testing in cooperation with leading research laboratories.

Further investigation with a culture medium developed last year has revealed that serum-albumin is remarkably specific for binding long-chain fatty acids. By explaining the function of albumin in the growth of tubercle bacilli, this discovery will promote improvement of diagnostic techniques.

For the prevention of tuberculosis, a broad program of research in BCG vaccination was initiated. A 10-year vaccination study of 3,000 American Indians, indicating marked protection by the vaccine, was followed in September 1946 by a conference in the offices of the division with representatives from 7 States, Denmark, and China. Guided by recommendations from the conference, the division began a vaccination program among school children in Muscogee County and Columbus, Ga., where 58,000 adults had previously been X-rayed. As a first step in the program, 15,000 children were tuberculin tested. Only those whose tests showed that they had not been infected with tuberculosis were considered for BCG, but the entire 15,000 will be followed for 5 years or longer. The Columbus study is designed to solve fundamental problems in the vaccination of population groups, especially those highly exposed to tuberculosis.

Review and Evaluation of the Program

A detailed review of the work of the division is made annually by consultants in every State of the Union, and evaluation schedules prepared by tuberculosis specialists are utilized in planning future control activities.

During the year, a comparison was made between tuberculosis hospital bed facilities in 1946 and 1947, and reports were prepared showing sanatorium occupancy and proposed construction. To measure the activity, effectiveness, and operating costs of chest clinics, surveys of clinic facilities were completed in Michigan and Connecticut. Cost analyses of X-ray surveys were prepared. A study is in progress to determine the number and location of social workers engaged in tuberculosis activities throughout the Nation. As the national program advances, control facilities and operations are evaluated to provide a measure of what has been done and what remains to be done.

Division of Hospital Facilities

On August 12, 1946, the President signed the Hospital Survey and Construction Act, Public Law 725 of the Seventy-ninth Congress, authorizing the most extensive hospital program in the history of this country. On August 16, the Hospital Facilities Section of the States Relations Division was reorganized as the Division of Hospital Facilities.

The Hospital Survey and Construction Act

This legislation has two broad purposes; to assist the States in surveying their hospital and health facilities and in planning to meet the needs revealed by this survey; and, to assist the States in the actual construction of hospitals, health centers and related facilities. Congress authorized $3,000,000 for survey and planning and $75,000,000 a year for the next 5 years for construction. In each case, two-thirds of the cost must be met by non-Federal funds.

The significance of this legislation goes beyond the aid it will provide in the development of needed health facilities. For the first time, a national policy has been established whereby hospitals and health centers are to be planned, located, and operated in relation to the over-all health needs of the people.

Appropriations

Of the $3,000,000 authorized for survey and planning, Congress appropriated $2,350,000. The sum of $1,800,000 was made available to the States for survey and planning, and $550,000 to the division for administrative purposes. No funds were appropriated for construction during the fiscal year 1947, since it was realized that considerable time would be required by the States to complete surveys and prepare plans.

Federal Hospital Council and Advisory Committees

Like other grants-in-aid programs, the hospital program is essentially a State and community responsibility, with over-all administration assigned to the Surgeon General. He is assisted by an eight-member Federal Hospital Council, appointed by the Federal Security Administrator, including members outstanding in the health and hospital fields as well as persons representing the consumers of hospital services. The council is assisted by an advisory committee, a rural health committee, and a technical committee on architectural standards.

Administration and Personnel

To administer the program, the division was organized into six major offices. The Office of the Chief is responsible for general planning and administration. The Office of Administrative Management has charge of administration within the division, personnel, and fiscal matters. The Office of Program Operations formulates, interprets, and carries out regulations and procedures, analyzes applications for funds and serves as a liaison with the States through the district offices of the Service. The Office of Program Planning makes long-range plans pertaining to the program, develops and carries out education and training, and prepares statistical data on hospitals. The Office of Technical Services works out architectural standards and plans, and reviews designs, blueprints, and construction details submitted by applicants for construction funds. The Office of Hospital Services conducts research on all phases of hospital planning and administration.

To insure a decentralized approach in the program, the division works largely through the district offices of the Service. Personnel with specialized training have been assigned to each office. These include a program director, hospital program representatives, hospital administrative consultant, hospital architect, and construction engineer. Not all district offices are completely staffed as yet.

Program Development

Regulations.—In February 1947, with the approval of the Federal Security Administrator and the Federal Hospital Council, the Surgeon General promulgated general regulations as required by law for the administration of the program. These regulations were prepared by the division in consultation with the council and the advisory committee. Their preparation involved the drafting of the first comprehensive standards for hospital construction ever compiled in this country.

Procedures.—The most significant procedures set up by the division covered the securing of grants for survey and planning by the State agencies administering the program; instructions for the preparation and submission of the State plan; and instructions for the preparation and submission of applications for construction funds.

The following procedures were developed in tentative form: Instructions for processing the State plans by the district offices; instructions on the preparation, submission, and processing of project construction schedules and of project applications for construction funds; determination of projects eligible for Federal funds; and construction of health facilities. A project control section was set up to process State plans and construction applications.

Field liaison.—As the district offices and the State agencies in charge of the program carry the major responsibility for its success, considerable field work was necessary. The district offices held conferences with State agency personnel to acquaint them with the policies and procedures involved. In addition, personnel from the district offices and from Washington assisted various States with the preparation of their State plans.

Legal.—During the year the division helped develop three model legislative acts. Two were presented to the States by the Council of State Governments: The State Enabling Act for the Hospital Survey and Construction Program, and the Hospital Licensure Act. The Municipal Hospital Facilities Act was sent direct to the State agencies. More than 400 pieces of State legislation were reviewed by the division, and nearly 500 memoranda written to district offices interpreting the Act, regulations, and procedures relating to the development of the State plan.

Program Status

By June 30, 1947, the status of the hospital program in the States was as follows: (*a*) All 52 States and Territories were conducting, and some had completed, an inventory of hospitals and health centers, (*b*) from 42 States applications had been received for survey and planning funds; of these, 32 States had submitted their survey and planning budgets and received payment, (*c*) enabling legislation to permit the State to take part in the hospital program had been passed by 44 States; of these, 15 States had adequate legislation prior to 1947, the remainder passed it during 1947, (*d*) hospital licensure laws were passed by 32 States, 9 prior to 1947 and 23 during 1947, (*e*) 5 States had passed laws, and others had legislation pending, to permit State grants-in-aid for hospitals; 1 State and 1 Territory included aid for hospital maintenance in their legislation, (*f*) 4 States had submitted their State plans, and it is expected that nearly all the States will submit their plans by December 31, 1947.

NOTE.—On July 8, 1947, the Labor-Federal Security Appropriations Act was signed, which made available to the States $75,000,000 for hospital construction during the fiscal year ending June 30, 1948.

Education and Training

This section conducted a 1-month orientation course for field personnel, and shorter courses for new personnel joining the staff.

To assist State agencies in reaching community groups, an educational program based on community organization was developed. A study guide, to assist communities in analyzing their needs, and five informational pamphlets were prepared. Section representatives worked with several State agencies on this program.

In response to requests from States, communities, and rural organizations, the division directed much of its educational work to rural groups. An interagency committee was formed with the Extension Service of the Department of Agriculture. Conferences were also held with farm organizations, which distributed materials to their State and local organizations.

Information

Public interest was reflected in a flood of requests for general and technical information from public officials, medical and hospital personnel, and private citizens. Nontechnical inquiries and requests for publications were answered by the section, and technical inquiries referred to the appropriate office.

Through news releases, magazine articles, and assistance to writers and editors, information concerning the program was placed in newspapers throughout the country, and in approximately 100 farm publications and 150 professional journals.

This section assisted in the preparation of both popular and technical publications, of addresses given before some 30 professional groups, and of exhibits shown at 7 professional conventions.

Research and Standards

The division completed the following research projects: Plans for psychiatric units for the general hospital; schematic plans showing relationship of health centers with other health facilities; and planning material for the design of formula rooms and maintenance shops of hospitals.

Plans, charts and text were prepared for a series of articles appearing in the Modern Hospital, entitled The Functional Basis of Hospital Planning; also prepared were plans for typical hospital boiler rooms, and lay-outs for ventilating, humidifying, and cooling systems for surgical suites.

Other research completed during the year included equipment lists for 50, 100, and 200-bed hospitals; food-buying charts for hospitals; planning material on hospital laboratory and pharmacy facilities; outline of hospital sanitary features for use by States in licensure laws; and a guide to the establishment of out-patient services.

Ten institutes on the analysis of nursing education costs were conducted before State leagues of nursing education, State boards of nurse examinations, and university nursing schools.

Statistics

From the inventories made by the States, the statistical staff of the division has prepared a reservoir of hospital statistical data. When completed, this will be the most comprehensive accumulation of hospital data ever assembled. It will be available for continuing studies of hospital problems.

Consultative Service

Approximately 25,000 requests were received during the year from States, communities, institutions, and individuals for information on the planning and operating of hospitals, as well as on various aspects of the hospital program.

Drawings and plans for hospital, laboratory, and training facilities were prepared for the Hospital Division, the States Relations Division, the Tuberculosis Control Division, the Mental Hygiene Division, and the National Institute of Health. Collaboration with the Children's Bureau continued. At the request of the Department of State, the Office of Inter-American Affairs, and the Pan American Sanitary Bureau, the division also worked on the planning of hospitals and health centers in Central and South America.

Industrial Hygiene Division

The major objectives of the division are twofold: (1) The development of methods aimed at protecting the health of workers and bringing to them optimum health and complete physical and mental fitness, and (2) the promotion of methods to insure the adoption and practice of health standards developed through investigative work. The first may be accomplished through field and laboratory investigations and demonstrations, both on an industry and on a hazard basis. The second objective is realized largely through the administration of the grants-in-aid program, through technical and administrative consultation, through information services, and through the many cooperative relationships which the division maintains in the field of industrial hygiene.

Field Investigations

Shipyards.—The final report has been completed on the clinical and environmental findings of a cooperative investigation into the respiratory health hazards of shipyard arc-welders who were working with coated electrodes on bare or galvanized steel. The investigation was instituted by the Division of Shipyard Labor Relations, United States Maritime Commission, and was conducted cooperatively by the United States Public Health Service, United States Maritime Commission, and the United States Navy. The report has been submitted for publication as a Public Health Bulletin.

In this investigation physical examinations were made on 4,650 workers employed in 7 shipyards located on the Atlantic, Pacific, and

Gulf coasts. About one out of every four workers examined was a nonwelder; the medical findings of this group served to control the clinical observations on the welders. Quantitative measurements were made of the fume and gases contaminating the air of the workplaces. These data include 1,767 samples for iron and total fume, 278 samples for zinc, 25 samples for lead, and 2,019 samples for the oxides of nitrogen. Clinical observations were made on the general fitness of the shipyard workers examined.

Some of the conditions noted, which were possibly related to welding exposure, include a respiratory symptom-complex (pharyngitis, rhinitis, and conjunctivitis), arc-welders' siderosis, cardiovascular hypotonia, and rather characteristic occupational stigmata of certain arc-welders caused by burns of hot slag or molten metal. These conditions were either infrequent or of a low order of severity. Detailed blood studies failed to reveal any marked blood dyscrasias among welders. Gastro-intestinal symptoms likewise were infrequent. There was no indication that welding fume, under the conditions observed, predisposed to pulmonary tuberculosis. In general the concentrations of welding fume and gas observed in the environmental phase of the study were relatively low, and the clinical findings were minimal. Safety and ventilating practices in the shipyards investigated seemed to have aided materially in keeping diseases of industrial origin at low levels of significance.

Cemented tungsten carbide industry.—Analyses continued of the physical examination data on 1,800 workers and of the data yielded by the workshop environment. Some preliminary findings are available. The regions of the body where the examiners consistently obtained abnormal findings on physical examinations are the conjunctivae and the respiratory tract. Dermatological studies indicated the existence of sensitivity to cobalt among certain of the workers as borne out by patch-testing. Oral examinations revealed abnormal conditions of the gingivae among three-fourths of those examined; about one-half of those examined showed mucous membranes abnormal to some extent. A total of 845 air samples was taken at the various operations. All determinations of both sample weight and of cobalt concentration have been completed. Of the samples, 709 were analyzed for their cobalt content; the remainder represents tungsten, silica, and other miscellaneous exposures. The average exposure at each operation in each of the three plants surveyed is now known. The average concentrations of cobalt range from 0.003 mg. per m.^{3} in the brazing operations to 79.305 mg. per m.^{3} in the furnace oxidation of cobalt. During the powder processing the cobalt concentrations were found to vary from 0.005 mg. per m.^{3} in the manufacture of carbide rings to 27.600 mg. per m.^{3} in the weighing of the powdered constituents.

Citrus canning and other industries.—At the request of the Florida State Board of Health and the Florida State Legislature, an investigation of dermatitis occurring among workers in the citrus industry was made. A total of 11 plants was covered. Other field investigations of dermatitis occurred in the following industries: Carpet manufacture; rayon manufacture; heavy machinery; textiles, in collaboration with the New Jersey Division of Adult and Industrial Health; yeast manufacturing; and liquor bottling.

Foundry industry.—Preliminary work has been done for a comprehensive investigation of the health hazards in foundries. This includes preparation of physical examination and environmental survey forms, determination of the number of workers to be examined, and conferences with organizations having an interest in the investigation.

Ringworm of the scalp.—An epidemic in the Middle West was considered of such a proportion as to indicate the assistance of one physician of this division for a period of 2 months. Successful therapeutic results are being shown.

United States mints.—An environmental survey was made of the Philadelphia, San Francisco, and Denver mints, and of the Assay Office in Seattle.

Industrial health survey.—The industrial hygiene phase of a public health survey of the large industrial city of Pittsburgh, Pa., is in progress.

Aid to States

Funds.—For the first time since the passage of the Social Security Act the Congress specifically earmarked 1 million dollars of grants-in-aid funds for industrial hygiene activities. This appropriation was allotted to each of the 52 States and Territories on the basis of population in hazardous industries weighted by the financial index. A minimum appropriation of $3,000 was first allotted to each jurisdiction so that it would be possible to initiate an industrial hygiene program in every State and Territory this year.

A compilation of industrial hygiene budgets for 1947 showed that in most States the new funds were used to supplement Federal funds budgeted from general health appropriations. In all, $1,330,473 of Federal funds were spent. State and local governments appropriated $879,227 making a total of $2,209,700 spent on industrial hygiene activities.

Because of the earmarking of funds for industrial hygiene, six States, Puerto Rico, and Alaska inaugurated industrial hygiene services this year. There are still three States in which industrial hygiene services are not yet functioning.

District consultants.—To give the States more direct assistance with their industrial hygiene problems, the division appointed five consultants to the United States Public Health Service district offices. These consultants cover all districts with the exception of District No. 1, and are responsible for assisting States with program planning, and for reviewing State programs and budgets. Program reviews completed this year revealed a shortage of adequately trained personnel.

Consultation services.—Staff members visited Vermont and Alaska to assist health authorities survey their industrial hygiene problems and plan a program for their solution. Similar assistance was given to Maine which established its industrial hygiene program this year. A number of States were assisted in setting up plans and systems to facilitate recording and reporting of industrial hygiene activities. An engineer was assigned temporarily to the Florida industrial hygiene unit to assist in establishing a program. An engineer was assigned to Arizona to assist in determining the industrial hygiene problems, and in the establishment of an industrial hygiene unit. On several occasions consultation services were made available to the Tennessee Valley Authority concerning occupational diseases and other problems of industrial hygiene.

Programs for the control of ringworm of the scalp have been initiated in 6 different localities under the consultative supervision of this division; about 25 agencies requested and received detailed instructions for the diagnosis, treatment, and control of the disease. Demands for consultation services in industrial nursing continued to be heavy from State departments of health and labor, and 16 State and local divisions were given such assistance.

Investigations of skin problems.—In collaboration with the industrial hygiene units of the State Departments of Health of California, Oregon, Washington, Idaho, Utah, and Colorado, a dermatologist was detailed for 1 month to survey, investigate, and confer on the incidence of occupational dermatoses among workers in such industries as metal works, foundries, rubber, synthetic rubber, lumber, plywood, furniture, resins, photographic and lithographic plants, seed plants, food-canning plants, quick-freezing plants handling vegetables, fish, meats, and food dehydration plants.

Laboratory analyses.—Laboratory services to the States included analyses of dusts, metal fumes, gases, solvents, biological materials, and miscellaneous bulk samples.

Health information.—The Industrial Hygiene Newsletter continued to be issued as a printed monthly publication with a circulation of about 5,000 copies. In the fall of 1946 an abstracting service was inaugurated with the appearance of the first number of the monthly Industrial Hygiene Index. The division's Manual of Industrial Hygiene (W. B. Saunders, Philadelphia, 1943) appeared in a Spanish edition.

A summary of State and local activities for the fiscal year 1946 was prepared and published in Occupational Medicine. The third edition of Trade Names Index, a list of trade names of materials used in industry and a description of their content, was prepared. An analysis of occupational disease codes of States was prepared. An exhibit, a pamphlet, and three folders were prepared on the subject of recruitment.

Cooperative Activities

Institute of Inter-American Affairs.—On the request of the institute a member of the staff was appointed industrial hygiene consultant to the institute. The consultant spent 2½ months in Bolivia to evaluate the program of the institute's industrial hygiene field party and to make recommendations concerning future activities; he prepared a report concerning the establishment of an industrial hygiene division in the Bolivian Ministry of Health and on the activities such a division might perform. A second request from the institute sent the consultant to Peru, which is now forming an industrial hygiene division to carry out a recently enacted industrial hygiene law.

Public Buildings Administration.—Work continued on the effects on working efficiency of improved lighting, color engineering, and other controlled changes in environment.

Federal Interdepartmental Safety Council.—Activities continued in the council which is the official advisory agency in all matters relating to accident prevention, and the safety of Federal employees.

Direct assistance to plants.—Industry-wide conferences were held with management on pneumoconiosis and occupational cancer.

Standardization activities.—Activities continued with various organziations, such as the American Conference of Governmental Industrial Hygienists, on a program designed to improve and standardize the laboratory methods which are employed in industrial hygiene.

Environmental surveys.—During the year, the division was called upon by various Government agencies, principally in Washington, D. C., to investigate problems of the working environment, such as odors, lighting, ventilation, and the hazards of solvent vapors, mercury, carbon monoxide, and cyanide.

Army Map Service.—A series of patch tests was made to determine the skin-irritating properties of two new diazo dyes to replace the use in lithography of potassium dichromate.

Federal Trade Commission.—Expert testimony, opinion, and consultation were given regarding the skin-irritating properties of various trade products and chemicals.

Other agencies.—Cooperation with reference to dermatoses was also performed with War Assets Corporation, Committee of Revision of the Pharmacopoeia of the United States, Bureau of Animal Industry, Food and Drug Administration, Procurement Division, Women's Bureau, Fish and Wildlife Service, Office of Housing Expediter, Office of Education, American Medical Association, Army Industrial Hygiene Laboratory and other units of the United States Army, and various units of the United States Navy.

Dermatoses Investigations

Subjects under investigation include: Protective ointment against stray radiation from X-ray machines, fluoroscopes, and radioactive substances; skin-irritating properties of new styrene type synthetic rubber which will include a resurvey of the entire rubber industry; fungicidal and bacteriocidal properties of resins; and irritating properties of the silicone resins.

Chemical studies.—Work continued on skin pigmentation, and poison ivy allergens. Four studies were completed on the chemistry of melanin, and three on poison ivy.

Statistical Investigations

Sickness among industrial workers.—The analysis of monthly reports of 8-day or longer disabilities from organizations providing sickness insurance for about 244,000 employees continued during the year, and the results were published periodically.

The 1946 male rate for sickness and nonindustrial injuries, 114.5 absences per 1,000 males, is the lowest annual rate since 1942, being 22 percent below the corresponding rate for 1945, and only 3 percent above the mean for the 10-year period 1937–46. Approximately one-half of the absences, among employees of companies reporting absences by duration, lasted longer than 3 weeks; one-eighth lasted longer than 10 weeks.

The 1946 female rate for sickness and nonindustrial injuries, 248.2 absences per 1,000 females, is next to the highest annual rate recorded for the 10 years, being 34 percent above the mean of 184.8 absences per 1,000 females, and 4 percent below the rate for 1945. Slightly less than one-half of the absences, among employees of companies reporting absences by duration, lasted longer than 3 weeks; one-tenth lasted longer than 10 weeks.

An analysis of reports of 1-day or longer disabilities from a large and a small public utility employing over 5,000 workers and about 3,000 workers respectively, shows, for 1946, rates of 1,121 and 1,695 absences per 1,000 males, and rates of 2,383 and 3,222 absences per 1,000 females.

Industrial Hygiene Foundation study.—An analysis was made of the 8-day or longer disability experience of five member companies of the Foundation for 1945 and earlier years. The average annual number of absences per 1,000 persons in 1945 is 154.9 for male and

201.3 for female employees; corresponding rates for a group of companies reporting to the United States Public Health Service being 147.4 and 257.9. For both males and females of the five companies, the frequency tends to increase over the 5-year period 1941–45. An examination of the frequency of specific causes of disabling sickness in 1945 and 1944 reveals that, among males and females, influenza and grippe account for more disabilities than any other single cause.

Other leading causes of disability among males are nonindustrial injuries, other respiratory diseases, rheumatic diseases, and diseases of circulatory system. Among females, diseases of pharynx and tonsils, and other respiratory diseases, rank among the more frequent causes of disability.

Days lost per year.—An analysis of 1-day or longer disabilities among workers of a public utility showed for 1946 an average rate of 12.6 days lost per male per year, the corresponding rate for 1945 being 14.4; for females, the rates for 1946 and 1945 were 16.0 and 15.1, respectively. During 1946, 9.4 percent of the workers were disabled 5 or more times, and 8.7 percent were disabled for 30 days or more.

Worker health data.—Data on the health of the worker, together with appropriate statistical procedures when indicated, were discussed with representatives of governmental agencies, private foundations, industry, and other groups interested in the health of the industrial worker.

Uses of statistical data.—A report published in Occupational Medicine on the administrative uses of statistical data in the development of industrial hygiene programs, refers to sources and limitations of data, and some administrative uses of data at the plant and other levels. Emphasis is placed on the provision of plant medical services, medical and engineering control of the working environment, control of sickness absenteeism, vocational placement and rehabilitation, employee counseling, health education, health insurance, litigation, provision of industrial hygiene services, formulation of legislation on workmen's compensation, establishment of codes and standards, and development of research programs.

Other Activities

Radiation hygiene.—An atomic-radiation hazards unit was created for the purpose of giving advice and assistance to the States in preventing health hazards in the use of radioactive isotopes and other sources of ionizing radiation such as X-ray machines, cyclotrons, and betatrons. Procedures will be developed for making surveys in industry to detect and evaluate exposures to radiation hazards; services for the calibration of instruments will be made available.

Industrial toxicology.—A notable advance has been made in the systematic collection and classification of toxicological information.

This information, which is currently revised, greatly facilitates the consulting services. The commercial utilization of a host of chemical materials, many of which were previously rare, continually presses the division for toxicological information; elemental fluorine is an instance. New solvents, plasticizers, unusual organic substances, and rare or semirare metals are coming into use as further technological advances are made. Toxicological consultation has been required for an impressive number of such substances.

Educational activities.—The personnel of the division participated in a wide variety of educational activities, thus making available a larger supply of trained industrial hygienists and improving the standards and practices of many phases of industrial hygiene. A number of persons from the States and foreign countries received training and orientation in industrial hygiene practices at division headquarters. There were 51 visitors from 23 foreign countries. Members of the division were increasingly called on for advice by universities and other educational institutions which were interested in establishing educational opportunities for industrial nurses, engineers, dentists, and physicians. In addition, staff members have been called on to address seminars and classes at these institutions. To familiarize dermatologists, industrial physicians, industrial nurses, and others with occupational dermatoses there were presented a number of courses, papers, lectures, and exhibits.

Industrial medical care.—A physician was added to the staff whose chief function is the study and evaluation of existing and proposed plans for general medical care of industrial workers in relation to plant medical programs.

Meetings.—Members of the division participated in meetings of national, regional, and State professional industrial hygiene organizations, notably the Industrial Health Conference in Buffalo in April–May, in which participated the American Association of Industrial Physicians and Surgeons, the American Industrial Hygiene Association, the American Conference of Governmental Industrial Hygienists, the American Association of Industrial Nurses, and the American Association of Industrial Dentists.

Office of Health Education

At the beginning of the fiscal year, the personnel and functions of the Office of Health Education and Training were transferred from the Division of Public Health Methods to the Bureau of State Services.

Consultant and advisory service to 25 States in 4 of the district offices was intensified through the assignment of health education consultants to the district offices. The health education program of each of the States has been reviewed and assistance given on the ways in which the educational activities within the State can be improved. This assistance has included program planning, staff training, personnel recruitment, coordination of community resources and evaluation. Special surveys of the health education needs of five States and two large cities were conducted and recommendations made for improvement in their programs.

The small central staff has focused on working with other organizations and assisting them in the incorporation of effective health education in their educational programs. A health workshop was conducted for labor and farm group leaders of North and South Dakota in Jamestown, N. Dak. Three months were spent analyzing the health education activities and potentialities of the American National Red Cross; and a report was submitted recommending consolidation of their present health education programs and the initiation of intensive local health education programs based on community health needs. Other organizations to which assistance has been given include the Junior League, the National Congress of Parents and Teachers, the American Dietetic Association, the American Cancer Society, the National Tuberculosis Association, and the National Health Council. Cooperative education activities have also been carried on with the Extension Division of the Department of Agriculture, the Office of Education, the Children's Bureau, and the Census Bureau.

Participation in international health education activities has markedly increased during the year. As an official delegate to the Second Pan American Sanitary Education Conference in Caracas, the chief of the office served as vice president of the conference. Increasingly, representatives of other governments seek information on program, methods, and materials of health education applicable to problems within their own countries. At the request of the Pan American Sanitary Bureau, a proposed health education program and administrative organization was prepared and submitted. A staff member of the office has participated as a member of the Audio-Visual Aids Committee of the United Nations, and has assisted UNESCO in the selection of American health films for showing in Paris.

With funds made available by the National Foundation for Infantile Paralysis, the office has administered a fellowship training program for physicians, engineers, and health educators. The fellowships have been publicized, the most competent candidates chosen, and field training for those awarded fellowships has been arranged. During the year 18 physicians, 35 engineers, and 15 health educators were given 12 months' training under this program.

Staff members have given one or more lectures on community health education at the following universities: Harvard, Yale, Michigan, North Carolina, Tennessee, Columbia, and Catholic University. An orientation course on the activities of Federal agencies in health education was arranged and conducted for the health-education students from the University of North Carolina and Yale University.

Office of Negro Health Work

During the fiscal year 1947, the activities of this office were particularly directed to promotion of the National Negro Health Week Program; publication of the National Negro Health News; and consultation services for official and nonofficial agencies, community health programs, and workshops.

The special objective of the 1947 National Negro Health Week was "Community-wide Cooperation for Better Health and Sanitation." Reports from participating localities and groups show that more than 3,000,000 persons in approximately 10,000 communities attended lectures, sermons, conferences, and group discussions and otherwise participated in the National Negro Health Week activities. Home and neighborhood and community-wide clean-up programs were reported for most of these communities, both rural and urban. Many communities organized the Health Week activities for year-round follow-up.

The National Negro Health News, which gives facts on the problems and programs of the health of the Negro, was improved this year by the publication of a greater number of original articles, some by personnel of divisions and offices of the Public Health Service.

The chief of the office visited 23 localities in 13 States, serving 55 organizations with 125 lectures and conferences. In cooperation with the Fish and Wildlife Service of the Department of the Interior and the State and local health authorities, a health and sanitation project was conducted in Crisfield, Md. This activity has resulted in legislation for the connection of all homes with available sewerage installations, the proposal of plans for a housing project for the Negro people of the community, and the organization of a school-community health council.

The chief of the office has served as consultant for the Office of International Health Relations in conferences with the Department of State on plans for the participation of the United States in the Centennial exercises of Liberia, Africa, in 1947, and the proposed Liberian Exposition in 1948–49.

District Offices

The district offices function as the field representatives of the Public Health Service, exercising direct supervision over all programs through which Service activities reach the States and Territories. In addition the district offices are responsible for the inspection and supervision of sanitation activities on common carriers to combat the interstate spread of communicable diseases, and, for the routine field inspections of Service hospitals, quarantine and relief stations.

Among specific responsibilities are the administration of grants-in-aid, and the provision of consultation services to the States upon request regarding fiscal and administrative matters, and health activities such as venereal-disease control, tuberculosis control, sanitation, cancer control, dental health, mental hygiene, public-health nursing, industrial hygiene, and health education. Also, district offices exercise general supervision over other field stations and over demonstrations and studies of the Service in the field.

Although all of the programs of the Service which pertain to State aid and interstate quarantine are administered through district offices, details of their total operations have been reported by the divisions concerned and appear elsewhere in this report.

At the beginning of fiscal year 1947, there were 10 district offices covering the 48 States, the District of Columbia, Alaska, Puerto Rico, the Virgin Islands, and the Territory of Hawaii. On September 1, 1946, District No. 10 was abolished and responsibility for the Territory of Hawaii was transferred to District No. 5 with headquarters in San Francisco, Calif.

During the year special emphasis was given by district personnel to assisting the States to expand local health services. Many States passed legislation during this period authorizing full coverage of their jurisdictions by local or district health units. Because of continuing lack of qualified personnel, however, progress in this area has been slow.

Passage of the Hospital Survey and Construction Act added greatly to the duties of the district offices, both in assisting States with surveys of existing facilities and approving plans for additional ones. Other Federal action which increased responsibilities of the districts toward the States was the enactment of the National Mental Health Act and the earmarking of special funds for cancer control activities.

The work of the districts in connection with certification of agencies and individuals for eligibility to purchase surplus property from the War Assets Administration was terminated early in the fiscal year.

Food handler schools for both restaurant and dining-car employees were greatly expanded during the year and an expansion was also noted in public health nursing activities throughout the country.

In addition to work with the States, the district offices cooperate with other Federal agencies in their health and sanitation programs. Among those receiving service assistance through the districts were: The Bureau of Prisons, Federal Public Housing Authority, National Park Service, War Food Administration, the United States Army, the Government Printing Office, the United States Maritime Commission, and the United States Naturalization and Immigration Service.

A directory of district offices as of June 30, 1947 follows:

No. 1: Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Headquarters Office, U.S. Sub-Treasury Building, 15 Pine Street, New York 5, N. Y. *Medical Director E. R. Coffey, District Director.*

No. 2: District of Columbia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia. Headquarters office, State-Planters Bank Building, Richmond 19, Va. *Medical Director W. K. Sharp Jr., District Director.*

No. 3: Illinois, Indiana, Kentucky, Michigan, Ohio, Wisconsin. Headquarters office, 852 U. S. Custom House, Chicago 7, Ill. *Medical Director F. V. Meriwether, District Director.*

No. 4: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Tennessee. Headquarters office, 707 Pere Marquette Building, New Orleans 12, La. *Medical Director C. C. Applewhite, District Director.*

No. 5: Alaska, Arizona, California, Hawaii, Nevada, Oregon, Washington. Headquarters office, 1152 U. S. Appraisers Building, San Francisco 11, Calif. *Medical Director W. T. Harrison, District Director.*

No. 6: Puerto Rico, the Virgin Islands. Headquarters office, San Juan 18, P. R. *Medical Director A. J. Aselmeyer, District Director.*[1]

No. 7: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. Headquarters office, 417 East Thirteenth Street, Kansas City 6, Mo. *Medical Director E. F. Warner, District Director.*[2]

No. 8: Colorado, Idaho, Montana, Utah, Wyoming. Headquarters office 331 New Custom House, Denver 2, Colo. *Medical Director F. T. Foard, District Director.*[3]

No. 9: New Mexico, Oklahoma, Texas. Headquarters office, 1114 Commerce Street, Room 513, Dallas 2, Tex. *Medical Director K. E. Miller, District Director.*

---

[1] Succeeded by Medical Director F. T. Foard when transferred to Communicable Disease Center, November 1, 1947.

[2] Succeeded by Medical Director J. O. Dean on October 1, 1947, when appointed Chief, States Relations Division.

[3] Succeeded by Medical Director L. B. Byington on July 1, 1947, when appointed Chief, States Relations Division.

APPENDIX

Fiscal Statement

TABLE 1.—*Statement of appropriations, obligations, and balances, fiscal year 1947*

Appropriation	Appropriated	Received by transfer and reimbursement	Reserve	Available for obligation	Expenditures		Unobligated balance
					Direct obligations	Transfer to other appropriations	
Pay, etc., commissioned officers	$5, 318, 400. 00	[1] $118, 761. 57		$5, 437, 161. 57	$4, 955, 479. 09	[2] $400, 000. 00	$81, 682. 48
Foreign quarantine service	1, 985, 900. 00	[3] 257, 668. 47		2, 243, 568. 47	2, 214, 922. 85	[4] 3, 000. 00	25, 645. 62
Control of tuberculosis	7, 994, 000. 00	[5] 114, 600. 00		8, 108, 600. 00	8, 086, 906. 51	[6] 3, 000. 00	18, 693. 49
Control of venereal diseases	16, 628, 000. 00	[7] 281, 800. 00		16, 909, 800. 00	16, 906, 145. 88		3, 654. 12
Assistance to States, general	15, 565, 000. 00	[8] 26, 257. 57		15, 591, 257. 57	15, 576, 874. 16		14, 383. 41
Control of communicable diseases	7, 372, 000. 00	[9] 525, 000. 00		7, 897, 000. 00	7, 880, 740. 91	[10] 1, 000. 00	15, 259. 09
Hospital and medical care	20, 354, 900. 00	[11] 5, 993, 612. 24		26, 348, 512. 24	26, 193, 462. 35	[12] 3, 500. 00	151, 549. 89
Operating expenses, National Institute of Health	5, 966, 948. 00	[13] 287, 600. 00		6, 254, 548. 00	6, 242, 919. 81	[14] 2, 750. 00	8, 878. 19
Operating expenses, National Cancer Institute	1, 772, 000. 00	[15] 98, 900. 00		1, 870, 900. 00	1, 849, 028. 85	[16] 4, 000. 00	17, 871. 15
Salaries and miscellaneous expenses	1, 931, 625. 00	[17] 262, 418. 04		2, 194, 043. 04	2, 174, 645. 03	[18] 5, 000. 00	14, 398. 01
Training for nurses	16, 300, 000. 00			16, 300, 000. 00	12, 045, 106. 24	[19] 3, 514, 822. 00	740, 071. 76
Development of health facilities	259, 043. 00			259, 043. 00	243, 747. 30		15, 295. 70
Office of international health relations	290, 700. 00	[20] 9, 530. 00		300, 230. 00	290, 202. 92		10, 027. 08
Hospital and construction activities	2, 350, 000. 00			2, 350, 000. 00	910, 151. 79	[21] 34, 175. 00	1, 405, 673. 21
Service and supply fund		[22] 1, 064, 543. 07		1, 064, 543. 07	981, 494. 99		83, 048. 08
Working capital fund		[23] 378, 197. 07		378, 197. 07	291, 957. 32		86, 239. 75
Operation of commissaries, division of mental hygiene	[24] 75, 202. 16			75, 202. 16	72, 611. 77		2, 590. 39
Total	104, 163, 718. 16	9, 418, 888. 03		113, 582, 606. 19	106, 916, 397. 77	3, 971, 247. 00	2, 694, 961. 42

---

[1] $106,883 from Justice; $11,878.57 from Office of Vocational Rehabilitation.

[2] $400,000 transferred for First Deficiency Act.

[3] $237,500 First Deficiency Act; $10,400 Second Deficiency Act; $8,046.60 from Agriculture; $1,721.87 for fumigation.

[4] $3,000 to Federal Security Agency.

[5] $99,000 First Deficiency Act; $15,600 Second Deficiency Act.

[6] $3,000 to Federal Security Agency.

[7] $258,400 First Deficiency Act; $23,400 Second Deficiency Act.

[8] $26,257.57 from Agriculture.

[9] $425,900, First Deficiency Act; $99,100, Second Deficiency Act.

[10] $1,000 to Federal Security Agency.

[11] $1,789,500, First Deficiency Act; $242,500, Second Deficiency Act; Veterans, $2,360,560.64; Army, $140,727.95; Navy, $666,305.95; Foreign Seamen, $243,859.81; Coast Guard, $38,920.64; St. Elizabeths Hospital, $263,197; Juvenile Court, $5,890.32; F. B. I., $12,828.86; Bureau of the Budget, $5,375.79; Bureau of Standards, $168.93; Department of Labor, $7,760.30; Department of State, $2,552.36; Employees Compensation Commission, $27,769.98; Federal Communications Commission, $2,562.91; Federal Works Agency, $8,679.27; Interior, $24,862.33; National Housing, $3,569.80; Reconstruction Finance Corporation, $15,284.23; Public Buildings Administration, $85,426.29; Treasury Department, $9,778.55; Vocational Rehabilitation, $7,194.14; miscellaneous, $28,336.19.

[12] $3,500 transferred to Federal Security Agency.

[13] $279,400, First Deficiency Act; $8,200, Second Deficiency Act.

[14] $2,750 to Federal Security Agency.

[15] $98,900 First Deficiency Act.

[16] $2,000 to Bureau of Standards; $2,000 to Federal Security Agency.

[17] $220,100, First Deficiency Act; $8,700, Second Deficiency Act; $2,750 from Freedmens; $854 from War Department; $22,250.34 from Agriculture; $4,463.90 from State; $3,229.80 from Federal Housing.

[18] $5,000 to Federal Security Agency.

[19] $500 to Federal Security Agency; $4,000 to St. Elizabeths; $10,322 to Freedmens; $3,500,000 transferred for First Deficiency Act.

[20] $3,830, First Deficiency Act; $5,400, Second Deficiency Act; $300 from Public Roads.

[21] $34,175 to Federal Security Agency.

[22] $98,417.26 balance July 1, 1946; $966,125.81 earnings.

[23] $162,001.50 balance July 1, 1946; $216,195.57 earnings.

[24] $6,015.19 balance July 1, 1946; $69,186.97 earnings.

TABLE 2.—*Funds made available from other sources, fiscal year 1947*

	Available	Obligations	Transfers	Balance
Printing and binding	$221, 290. 00	$217, 358. 03	------------	$3, 931. 97
Traveling expenses	1, 303, 983. 50	1, 213, 426. 74	------------	90, 556. 76
Salaries and expenses, vital statistics	933, 511. 00	895, 538. 44	------------	37, 972. 56
Printing and binding, vital statistics	38, 000. 00	37, 045. 41	------------	954. 59
Penalty mail, costs—vital statistics	65, 000. 00	13, 585. 35	------------	51, 414. 65
Medical and hospital service, penal institutions	1, 185, 000. 00	1, 175, 885. 23	------------	9, 114. 77
Maritime training fund	54, 050. 00	51, 092. 32	------------	2, 957. 68
Cooperation with American Republics	282, 394. 00	247, 473. 08	------------	34, 920. 92
Special and technical investigations, United States and Canada	70, 000. 00	66, 254. 52	------------	3, 745. 48
Philippine rehabilitation	2, 946, 000. 00	1, 489, 056. 05	------------	1, 456, 943. 95
Working funds, FSA	307, 750. 66	265, 411. 06	------------	42, 339. 60
UNRRA	429, 356. 45	405, 529. 23	------------	23, 827. 22
Total	7, 836, 335. 61	6, 077, 655. 46	------------	1, 758, 680. 15

TABLE 3.—*Allocations from Federal Security Agency, fiscal year 1947*

	Available	Obligations	Transfers	Balance
Surplus property	$153, 000. 00	$152, 764. 00	------------	$236. 00
Civilian war benefits	15, 000. 00	9, 442. 62	------------	5, 557. 38
Civilian war assistance	528, 175. 00	108, 093. 10	------------	420, 081. 90

TABLE 4.—*Miscellaneous receipts, fiscal year 1947*

Source	Amount
GENERAL AND SPECIAL ACCOUNTS	
REVENUE RECEIPTS	
Fees: Commissions on telephone pay stations in Federal buildings outside Washington, D. C	$12, 174. 36
Interest, exchange, and dividends: Interest on public deposits	299. 15
Permits, privileges, and licenses: Business concessions	12, 088. 50
Reimbursements:	
Refund on empty containers	406. 35
Refund on terminal leave compensation	3, 785. 93
Government property lost or damaged	7, 014. 00
Hospitalization charge and expenses	49, 380. 63
Jury service	70. 00
Sales of Government property-products:	
Livestock and livestock products	1, 331. 22
Occupational therapy products	506. 26
Scrap, salvaged materials, refuse, garbage, etc	7, 677. 83
Publications	84. 56
Subsistence	109, 510. 03
Sale of Government property	5, 319. 90
Sales of services:	
Quarantine charges	6, 366. 64
Quarters, etc	1, 678. 58
Total	217, 693. 94

Personnel

TABLE 5.—*Civil service personnel report, as of September 30, 1947*

	Total	District of Columbia area	States	Outside United States
Office of the Surgeon General:				
Immediate office	10	10	------	------
Office of the Executive Assistant	97	97	------	------
Office of Personnel	116	116	------	------
Budget and Fiscal Office	182	182	------	------
Division of Commissioned Officers	52	52	------	------
Division of Public Health Methods	178	172	6	------
Division of Nursing	82	45	37	------
Dental Division	7	7	------	------
Sanitary Engineering Division	112	20	92	------
International Health Relations	21	14	1	6
National Office of Vital Statistics	251	222	29	------
Purchase and Supply	66	51	15	------
National Institute of Health	883	698	185	------
National Cancer Institute	230	213	17	------
Bureau of Medical Services:				
Foreign Quarantine Division	623	21	520	82
Hospital Division	6, 162	167	5, 898	97
Coast Guard	71		71	
Mental Hygiene Division	894	50	844	------
Federal Penal Services	347	18	329	------
Federal Employee Health Division	89	89	------	------
Freedmen's Hospital	708	708	------	------
Bureau of State Services:				
States Relations Division	155	41	99	15
Tuberculosis Control Division	175	145	29	------
Venereal Disease Division	569	146	421	2
Industrial Hygiene Division	36	34	2	------
U. S. P. H. S. districts	214	1	207	6
Office of the Chief	88	88	------	------
Communicable Disease Center	1, 419	------	1, 346	73
Philippine Rehabilitation	920	3	------	917
Office of Health Education	11	11	------	------
Division of Hospital Facilities	98	91	7	------
Detailed to other organizations	3	2	1	------
Total	14, 868	3, 514	10, 156	1, 198

Morbidity Reports

TABLE 6.—*Communicable diseases in the United States, calendar years 1943–46*[1]

Disease	Number of States reporting[2]	Cases per 100,000 population			
		1943[3]	1944[3]	1945[3]	1946[3]
Chickenpox	46	234. 0	249. 7	227. 2	[5] 168. 3
Diphtheria	48	11. 1	10. 7	14. 1	11. 7
Influenza[4]	46	367. 9	383. 9	416. 1	[6] 232. 5
Malaria	48	40. 7	43. 5	47. 6	34. 6
Measles	48	473. 0	475. 5	110. 6	497. 3
Meningitis, meningococcus	48	13. 6	12. 3	6. 2	4. 0
Mumps	42	178. 9	154. 2	173. 8	[6] 128. 5
Pellagra[4]	48	4. 0	3. 8	3. 3	2. 9
Pneumonia (all forms)[4]	47	128. 6	115. 4	99. 2	80. 9
Poliomyelitis	48	9. 3	14. 4	10. 3	18. 1
Scarlet fever	48	106. 5	145. 3	132. 9	82. 9
Smallpox	48	0. 6	0. 3	0. 3	0. 2
Tuberculosis (all forms)[4]	48	90. 9	97. 3	89. 3	83. 8
Tuberculosis (respiratory system)[4]	42	66. 1	72. 9	68. 5	[7] 63. 0
Typhoid and paratyphoid fever	48	4. 1	4. 2	3. 7	2. 9
Whooping cough	48	143. 2	82. 9	101. 4	78. 5
Population in thousands	------	133, 960	132, 563	131, 976	139, 893

---

[1] Figures for cases and population estimates used in computing rates include both civilian and military populations.

[2] In addition to the number of States given, the District of Columbia is also included.

[3] The numbers of cases used for 1943 are for the civilian and military populations of all States except Ohio, North Dakota, and South Dakota, for 1944 include all States except Florida, for 1945 include all States except Rhode Island and Maryland, and for 1946 all States except Texas.

[4] Includes the numbers of deaths used as cases in those States which report no cases, or in which States the number of reported cases is less than the number of deaths.

[5] Data for 47 States and the District of Columbia.

[6] Data for 45 States and the District of Columbia.

[7] Data for 41 States and the District of Columbia.

TABLE 7.—*World prevalence of quarantinable diseases, calendar years 1945–46*

CHOLERA

Place	Cases reported 1945	Cases reported 1946
Afghanistan	----------	35
Burma	7,769	1,543
Ceylon	19	110
China	24,131	35,261
India	268,884	72,740
India (French)	----------	4
Indochina (French)	Present	1,762
Japan	----------	1,229
Korea (Chosen)	----------	11,351
Malay States	----------	245
Manchuria	----------	18,554
Mongolia	----------	18
Philippine Islands	1	----------
Siam (Thailand)	5,945	4,379
Straits Settlements	----------	1

PLAGUE

Place	Cases reported 1945	Cases reported 1946
Algeria	14	2
Argentina	5	9
Basutoland	4	----------
Bechuanaland	19	21
Belgian Congo	28	35
Bolivia	79	13
Brazil	98	269
British East Africa:		
Kenya	93	38
Uganda	6	12
Burma	697	1,703
China	212	6,312
Ecuador	45	45
Egypt	217	217
France: Corsica	8	----------
French West Africa	5	----------
Great Britain: Malta	75	6
India	50,539	21,705
Indochina (French)	----------	52
Iraq	34	----------
Italy	28	----------
Java	----------	[1] 2,409
Madagascar	184	282
Manchuria	----------	316
Morocco (French)	811	----------
New Caledonia	60	----------
Palestine	46	17
Peru	93	118
Portugal: Azores	55	23
Senegal	54	----------
Siam (Thailand)	143	41
Spain: Canary Islands	1	----------
Tunisia	3	----------
Union of South Africa	18	7
Venezuela	----------	1

SMALLPOX

Place	Cases reported 1945	Cases reported 1946
Algeria	209	393
Angola	253	184
Arabia	29	4
Argentina	6	69
Basutoland	576	46
Bechuanaland	----------	14
Belgian Congo	6,938	3,483
Belgium	1	----------
Bolivia	1,793	918
Brazil	941	678
British East Africa:		
Kenya	815	893
Nyasaland	170	745
Tanganyika	10,862	7,332
Uganda	1,279	574
Burma	81	1,981
Cameroon (French)	837	96
Canada	6	2
Ceylon	848	546
China	1,530	2,687
Colombia	1,234	1,071
Czechoslovakia	----------	24
Dahomey	330	1,591
Ecuador	40	120
Egypt	1,262	405
Eritrea	----------	23
France	27	16
French Equatorial Africa	2,664	163
French Guinea	1,724	940
French West Africa: Dakar District	8,078	40
Gambia	82	7
Germany	3	1
Gibraltar	----------	3
Gold Coast	914	1,552
Great Britain:		
England and Wales	5	55
Malta	----------	10
Scotland	2	2
Greece	----------	114
Guatemala	4	56
Honduras	8	4
India	284,480	60,453
India (French)	----------	3
India (Portuguese)	----------	19
Indochina (French)	----------	2,377
Iran	400	40
Iraq	41	22
Italy	2,724	654
Ivory Coast	563	1,651
Japan	1,719	17,800
Liberia	----------	237
Libya	25	923
Madagascar	----------	1
Malay States	----------	2,973
Manchuria	----------	96
Mauritania	85	1
Mexico	1,426	397
Morocco (French)	3,198	1,890
Morocco (Int. Zone)	----------	181
Morocco (Spanish)	----------	8
Mozambique	1	4
Nicaragua	141	3
Nigeria	5,137	7,345
Niger Territory	638	563
Palestine	----------	2
Paraguay	1	397
Peru	276	536
Portugal	29	61
Rhodes, Island of	----------	1
Rhodesia:		
Northern	6,005	436
Southern	16	148
Senegal	504	95
Siam (Thailand)	34,970	17,775
Sierra Leone	106	500
Somaliland (British)	1	----------
Somaliland (Italian)	----------	1
Spain	31	9
Straits Settlements	----------	204
Sudan (Anglo-Egyptian)	5	56
Sudan (French)	3,004	2,041
Swaziland	----------	4
Syria and Lebanon	14	9
Togo (British)	54	----------
Togo (French)	528	361
Trans-Jordan	2	----------
Turkey	297	17
Tunisia	207	565
Union of South Africa	2,337	733
Uruguay	106	52
Venezuela	970	1,771
Yugosalvia	----------	1

See footnotes at end of table.

TABLE 7.—*World prevalence of quarantinable diseases, calendar years 1945–46*—Continued

TYPHUS FEVER [2]

Place	Cases reported 1945	Cases reported 1946	Place	Cases reported 1945	Cases reported 1946
Albania	262	140	Iraq	273	219
Algeria	1,024	843	Italy	198	92
Arabia [3]	---	2	Jamaica [4]	49	41
Argentina	9	7	Japan	2,392	31,141
Austria	56	35	Libya: Tripolitania	43	88
Australia [4]	116	153	Madagascar [4]	1	1
Basutoland	118	11	Malay States	---	3
Belgian Congo [3]	1,091	2,570	Manchuria	---	713
Belgium [3]	158	14	Martinique	1	---
Bolivia	770	254	Mexico	1,687	1,928
Brazil [3]	8	17	Morocco (French)	8,143	3,795
British East Africa:			Morocco (Int. Zone)	---	59
Kenya	40	26	Morocco (Spanish)	8	38
Uganda	---	1	Netherlands [3]	67	29
Bulgaria	---	1,120	Nicaragua [4]	---	1
Burma [3]	---	4	Nigeria	93	53
Canada	1	---	Norway	8	---
Chile	665	561	Palestine [3]	191	121
China [3]	2,182	395	Panama (Republic)	6	5
Colombia	533	973	Paraguay	---	7
Costa Rica [4]	18	123	Peru	771	1,123
Cuba [4]	13	18	Poland	17,146	3,430
Curacao [4]	4	1	Philippine Islands [3]	---	4
Czechoslovakia	582	799	Portugal	53	14
Denmark	162	---	Puerto Rico [4]	180	105
Ecuador [3]	594	1,096	Rhodesia, Northern	31	2
Egypt	18,471	1,525	Rumania	10,177	8,735
Eritrea	81	1,407	Salvador	---	1
France [3]	512	16	Sierra Leone [3]	11	6
French West Africa	20	7	Spain	27	28
Germany	8,025	1,873	Straits Settlements	---	3
Gibraltar [3]	9	2	Sweden [3]	226	2
Gold Coast	1	1	Switzerland [3]	6	2
Great Britain	26	1	Syria and Lebanon	15	86
Malta and Gozo [3]	15	32	Trans-Jordan	47	21
Greece [3]	697	631	Tunisia [3]	403	340
Guatemala	2,834	779	Turkey	2,795	1,412
Hungary	---	1,115	Union of South Africa [3]	1,016	568
India	23	303	Venezuela [3]	144	112
Indochina (French)	---	70	Virgin Islands [4]	13	3
Iran	826	151	Yugoslavia	14,157	3,079

YELLOW FEVER

Place	Cases reported 1945	Cases reported 1946	Place	Cases reported 1945	Cases reported 1946
Bolivia	3	[1, 5] 40	Ivory Coast	2	1
Brazil	[1] 102	[1] 1	Nigeria	---	46
British Guiana	1	---	Peru	[7] 10	[1] 3
Colombia	[1] 23	[1, 6] 6 20	Sierra Leone	2	1
French Equatorial Africa	---	[7] 8	Sudan (French)	[9] 1	---
Gold Coast	[8] 22	---	Venezuela	33	12

---

[1] Deaths.

[2] Reports from some areas are probably murine type, while others probably include both murine and louse-borne types.

[3] Includes cases of murine type.

[4] Murine type.

[5] Diagnosis confirmed in 14 cases and 10 deaths.

[6] Includes 1 case not fatal.

[7] Includes 3 suspected cases.

[8] Includes 8 suspected cases.

[9] Suspected.

Medical Relief Activities, Hospital Division, Bureau of Medical Services

TABLE 8.—*Volume of medical services, by type of station, fiscal year 1947*

Hospital or medical relief stations	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1947	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
Marine hospitals	360,845	84,970	1,413	5,591	2,088,524	275,875	800,564	108,134
Second-class stations	171,974	3,908	24	128	48,462	168,066	577,786	91,688
Third-class stations	30,733	2,421	26	52	17,898	28,312	54,433	12,598
Fourth-class stations	75	17	--------	1	225	58	94	--------
Special acting assistant surgeons for Coast Guard and Coast and Geodetic Survey	2,402	37	1	--------	401	2,365	4,631	262
U. S. Navy Hospitals [1]	1,003	1,003	3	9	24,262	--------	--------	--------
U. S. Army Hospitals [1]	366	366	7	18	9,698	--------	--------	--------
Veterans' facilities	3	3	--------	--------	26	--------	--------	--------
Employees' health units, Treasury Department and U. S. Public Health Service	65,889	--------	--------	--------	--------	65,889	125,526	500
Employees health units, other agencies	21,223	--------	--------	--------	--------	21,223	44,950	--------
Emergency	228	71	--------	--------	567	157	319	1,271
Total	654,741	92,796	1,474	5,799	2,190,063	561,945	1,608,303	214,453

[1] Volume of relief understated due to incomplete reports.

TABLE 9.—*Volume of medical services for various classes of beneficiaries, by type of station, fiscal year 1947*

Beneficiary class of station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1947	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
American merchant seamen:								
Marine hospitals	208,462	37,543	660	2,704	1,002,461	170,919	471,536	57,336
Other relief stations	110,204	4,204	42	116	42,491	106,000	332,092	37,651
U. S. Army hospitals [1]	318	318	7	17	8,617	--------	--------	--------
Emergency	17	11	--------	--------	153	6	10	1
Total	319,001	42,076	709	2,837	1,053,722	276,925	803,638	94,988
Coast Guard personnel:								
Marine hospitals	25,744	6,717	47	346	151,950	19,027	54,980	7,191
Other relief stations	11,481	468	2	5	2,968	11,013	29,936	6,797
Special Acting Assistant Surgeons	2,399	37	1	--------	401	2,362	4,622	262
U. S. Navy hospitals [1]	929	929	3	9	22,193	--------	--------	--------
U. S. Army hospitals [1]	35	35	--------	--------	823	--------	--------	--------
Veterans' facilities	1	1	--------	--------	13	--------	--------	--------
Emergency	210	59	--------	--------	405	151	309	1,270
Total	40,799	8,246	53	360	178,753	32,553	89,847	15,520
Coast Guard dependents:								
Marine hospitals	10,497	1,612	8	59	18,134	8,885	35,266	45
Other relief stations	3,562	--------	--------	--------	--------	3,562	13,256	42
Total	14,059	1,612	8	59	18,134	12,447	48,522	87
Coast and Geodetic Survey personnel:								
Marine hospitals	841	103	1	5	1,707	738	2,180	704
Other relief stations	341	5	--------	--------	26	336	1,101	146
Special acting assistant surgeons	3	--------	--------	--------	--------	3	9	--------
U. S. Navy hospitals [1]	6	6	--------	--------	81	--------	--------	--------
Emergency	1	1	--------	--------	9	--------	--------	--------
Total	1,192	115	1	5	1,823	1,077	3,290	850

TABLE 9.—*Volume of medical services for various classes of beneficiaries, by type of station, fiscal year 1947*—Continued

Beneficiary class of station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1947	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examination
Coast and Geodetic Survey dependents:								
Marine hospitals	442	75	--------	1	858	367	1,384	2
Other relief stations	195	--------	--------	--------	--------	195	944	1
Total	637	75	--------	1	858	562	2,328	3
Seamen, Engineer Corps, and Army Transport Service:								
Marine hospitals	10,873	2,297	36	132	60,236	8,576	27,809	335
Other relief stations	3,196	271	2	8	3,557	2,925	7,971	843
U. S. Army hospitals [1]	11	11	--------	1	229	--------	--------	--------
Total	14,080	2,579	38	141	64,022	11,501	35,780	1,178
Seamen, not enlisted or commissioned, from other Government vessels:								
Marine hospitals	76	10	--------	--------	173	66	168	--------
Other relief stations	123	2	--------	--------	12	121	127	100
Total	199	12	--------	--------	185	187	295	100
Seamen from foreign vessels:								
Marine hospitals	5,252	2,526	17	169	42,603	2,726	5,085	5
Other relief stations	1,574	126	--------	1	1,089	1,448	3,752	100
Total	6,826	2,652	17	170	43,692	4,174	8,837	105
Public Health Service officers and employees:								
Marine hospitals	24,517	1,900	12	61	28,735	22,617	82,877	2,073
Other relief stations	4,425	18	--------	2	127	4,407	23,832	668
U. S. Naval hospitals [1]	11	11	--------	--------	332	--------	--------	--------
U. S. Army hospitals [1]	2	2	--------	--------	29	--------	--------	--------
Total	28,955	1,931	12	63	29,223	27,024	106,709	2,741
Public Health Service dependents:								
Marine hospitals	1,838	294	2	14	4,314	1,544	7,416	1
Other relief stations	118	--------	--------	--------	--------	118	629	--------
Total	1,956	294	2	14	4,314	1,662	8,045	1
Persons afflicted with leprosy:								
Marine hospitals	474	468	12	388	138,710	6	6	--------
Other relief stations	--------	--------	--------	--------	--------	--------	--------	--------
Total	474	468	12	388	138,710	6	6	--------
Bureau of Employees' Compensation:								
Marine hospitals	25,827	7,063	22	374	146,794	18,764	62,006	12,782
Other relief stations	23,318	1,110	4	45	14,537	22,208	127,798	9,861
Total	49,145	8,173	26	419	161,331	40,972	189,804	22,643
Immigrants and Alien Seamen:								
Marine hospitals	7,414	2,235	6	54	27,648	5,179	8,903	1,389
Other relief stations	272	65	--------	--------	998	207	297	4,376
Total	7,686	2,300	6	54	28,646	5,386	9,200	5,765
Army and Selective Service:								
Marine hospitals	1,556	669	2	14	5,812	887	2,071	3
Other relief stations	160	6	--------	--------	18	154	406	5
Total	1,716	675	2	14	5,830	1,041	2,477	8
Navy and Marine Corps:								
Marine hospitals	2,033	580	4	12	7,926	1,453	4,164	28
Other relief stations	205	30	--------	1	146	175	365	18
Total	2,238	610	4	13	8,072	1,628	4,529	46

---

[1] Volume of relief understated due to incomplete reports.

TABLE 9.—*Volume of medical services for various classes of beneficiaries, by type of station, fiscal year 1947*—Continued

Beneficiary class of station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1947	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
Veterans' Administration:								
Marine hospitals	18, 362	18, 059	518	1, 118	397, 127	303	2, 042	1, 749
Other relief stations	287	37	--------	3	594	250	399	34
Total	18, 649	18, 096	518	1, 121	397, 721	553	2, 441	1, 783
Work Projects Administration:								
Marine hospitals	142	92	2	12	3, 475	50	191	29
Other relief stations	5	--------	--------	--------	--------	5	44	--------
Total	147	92	2	12	3, 475	55	235	29
National Youth Administration:								
Marine hospitals	4	4	--------	1	107	--------	--------	1
Other relief stations	--------	--------	--------	--------	--------	--------	--------	--------
Total	4	4	--------	1	107	--------	--------	1
Former enrollees, Civilian Conservation Corps:								
Marine hospitals	20	17	--------	1	724	3	6	4
Other relief stations	--------	--------	--------	--------	--------	--------	--------	1
Total	20	17	--------	1	724	3	6	5
Maritime Service:								
Marine hospitals	1, 225	488	4	21	10, 929	737	2, 024	64
Other relief stations	4, 430	2	--------	--------	12	4, 428	16, 838	3, 333
U. S. Navy hospitals [1]	57	57	--------	--------	1, 656	--------	--------	--------
Veterans' facilities	2	2	--------	--------	13	--------	--------	--------
Total	5, 714	549	4	21	12, 610	5, 165	18, 862	3, 397
Mariners for licenses:								
Marine hospitals	--------	--------	--------	--------	--------	--------	--------	9, 678
Other relief stations	--------	--------	--------	--------	--------	--------	--------	16, 591
Total	--------	--------	--------	--------	--------	--------	--------	26, 269
Federal employees for other purposes:								
Marine hospitals	--------	--------	--------	--------	--------	--------	--------	8, 183
Other relief stations	--------	--------	--------	--------	--------	--------	--------	14, 512
Total	--------	--------	--------	--------	--------	--------	--------	22, 695
Miscellaneous:								
Marine hospitals	15, 246	2, 218	60	105	38, 101	13, 028	30, 450	6, 532
Other relief stations	38, 886	2	--------	--------	10	38, 884	72, 526	9, 207
Employees' health units, Treasury Department and emergency room, Public Health Service Building	65, 889	--------	--------	--------	--------	65, 889	125, 526	500
Employees' health units, Other agencies	21, 223	--------	--------	--------	--------	21, 223	44, 950	--------
Total	141, 244	2, 220	60	105	38, 111	139, 024	273, 452	16, 239
Totals:								
Marine hospitals	360, 845	84, 970	1, 413	5, 591	2,088,524	275, 875	800, 564	108, 134
Other relief stations	202, 782	6, 346	50	181	66, 585	196, 436	632, 313	104, 286
Special acting assistant surgeons	2, 402	37	1	--------	401	2, 365	4, 631	262
U. S. Navy hospitals [1]	1, 003	1, 003	3	9	24, 262	--------	--------	--------
U. S. Army hospitals [1]	366	366	7	18	9, 698	--------	--------	--------
Veterans' facilities	3	3	--------	--------	26	--------	--------	--------
Employees' health units, Treasury Department and emergency room, Public Health Service building	65, 889	--------	--------	--------	--------	65, 889	125, 526	500
Employees' health units, other agencies	21, 223	--------	--------	--------	--------	21, 223	44, 950	--------
Emergency	228	71	--------	--------	567	157	319	1, 271
Total	654, 741	92, 796	1, 474	5, 799	2,190,063	561, 945	1,608,303	214, 453

---

[1] Volume of relief understated due to incomplete reports.

TABLE 10.—*Medical services furnished by U. S. Marine Hospitals and U. S. Public Health Service medical relief stations, fiscal years 1912–47*[1]

Fiscal year	Marine Hospitals						Medical relief stations			
	In-patient admissions	Hospital days	Average daily in-patient load	Average length of stay	Out-patient treatments	Physical examinations	In-patient admissions	Hospital days	Out-patient treatments	Physical examinations
1912	9,125	348,710	952.8	37.9	33,202	5,634	4,449	74,833	27,756	4,630
1913	8,519	316,835	868.0	37.1	35,081	5,609	4,664	72,134	25,618	4,362
1914	9,092	322,779	884.3	35.7	36.751	4,220	4,436	70,686	27,115	3,618
1915	9,091	352,018	964.4	38.8	40,285	3,872	4,199	68,098	27,308	3,058
1916	9,406	378,341	1,033.7	40.3	38,349	25,368	4,919	61,639	31,374	12,228
1917	10,395	391,172	1,071.7	37.6	42,919	17,800	5,651	87,157	55,338	10,211
1918	11,867	415,465	1,138.3	35.5	36,789	18,257	6,064	88,887	37,223	11,207
1919	[2] 23,992	589,719	1,615.7	24.9	55,514	21,564	10,099	128,460	42,773	19,084
1920	[2] 25,521	708,513	1,935.8	27.8	105,023	34,659	11,011	185,092	116,208	66,806
1921	[2] 24,722	771,000	2,112.3	31.4	145,447	60,148	12,566	258,293	160,187	106,801
1922	[2] 31,136	995,227	2,726.6	32.0	151,056	61,308	9,632	231,378	183,118	110,872
1923	29,031	997,996	2,734.2	34.4	122,653	27,619	7,052	148,981	162,023	48,491
1924	30,280	1,032,977	2,822.3	34.3	156,318	29,210	7,735	157,147	212,067	31,210
1925	32,077	1,144,482	3,135.6	35.8	186,919	31,010	7,652	152,716	233,315	41,705
1926	31,571	1,150,785	3,152.8	36.5	213,960	33,179	6,870	129,499	256,398	51,898
1927	31,068	1,145,324	3,137.9	36.8	230,411	39,511	6,451	94,506	254,434	53,251
1928	30,693	1,210,570	3,307.6	39.7	266,024	38,034	6,708	97,544	258,585	57,500
1929	32,523	1,311,067	3,592.0	40.5	295,816	41,052	7,654	102,340	305,328	65,404
1930	35,080	1,394,233	3,819.8	39.9	342,474	37,745	7,394	105,076	375,058	71,755
1931	35,055	1,507,787	4,130.9	43.1	375,761	31,417	7,418	108,518	390,649	57,186
1932	33,927	1,584,222	4,328.5	47.0	426,436	27,855	6,455	95,897	398,138	43,326
1933	33,353	1,621,579	4,442.7	48.0	463,509	28,068	5,887	82,609	428,136	29.902
1934	33,394	1,504,600	4,122.2	45.4	429,104	35,449	4,902	61,620	474,372	44,278
1935	39,385	1,681,548	4,607.0	42.6	462,657	34,083	4,702	56,989	471,915	51,685
1936	44,687	1,787,747	4,884.6	40.3	526,346	49,233	4,720	54,546	476,036	58,056
1937	48,866	1,916,711	5,251.3	39.3	580,153	82,840	5,176	59,866	505,109	75,905
1938	49,869	1,876,414	5,140.9	37.6	641,876	77,096	4,955	60,952	523,971	85,455
1939	54,472	1,902,113	5,211.3	34.9	559,243	94,873	5,283	61,249	559,741	98,504
1940	58,356	1,899,184	5,189.0	32.6	548,778	98,399	6,044	67,022	578,919	106,062
1941	65,044	1,991,508	5,456.2	30.6	530,430	94,369	6,531	72,458	544,012	121,587
1942	68,689	1,972,470	5,404.0	28.8	565,518	99,794	7,014	75,961	555,715	142,822
1943	87,945	2,116,347	5,798.2	24.1	692,273	107,945	8,684	80,948	648,298	133,201
1944	94,670	2,197,593	6,004.4	23.2	742,785	101,257	7,518	75,315	631,225	90,093
1945	99,743	2,286,231	6,263.6	23.0	856,845	118,272	8,698	87,772	715,721	101,393
1946	97,375	2,290,248	6,274.7	23.4	938,995	109,616	7,522	78,691	624,414	91,365
1947	79,425	2,088,524	5,722.0	26.3	800,564	108,134	6,167	66,585	632,313	104,286

[1] Includes contract overflow facilities of Marine Hospitals.

[2] U. S. Public Health Service Veterans' facilities operated from 1919–22 and then transferred to Veterans Administration are not included.

TABLE 11.—*Transactions at U. S. Marine Hospitals and U. S. Public Health Service medical relief stations, fiscal year 1947*

Hospital or medical relief station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1947	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
MARINE HOSPITALS								
Baltimore, Md	35,423	8,388	148	434	147,938	27,035	94,317	10,665
Boston, Mass	18,338	4,291	59	262	110,642	14,047	40,353	7,417
Buffalo, N. Y	4,880	1,490	21	61	25,841	3,390	12,880	1,616
Carville, La	3,426	452	9	386	138,419	2,974	5,623	25
Chicago, Ill	8,163	2,562	22	180	66,132	5,601	20,668	4,673
Cleveland, Ohio	10,764	3,407	77	224	82,965	7,357	25,527	5,135
Detroit, Mich	6,901	2,871	76	242	81,924	4,030	18,700	4,200
Ellis Island, N. Y	12,799	4,449	37	284	106,004	8,350	14,839	799
Evansville, Ind.[1]	1,459	685	28	----	12,931	774	1,439	549
Fort Stanton, N. Mex	1,995	361	19	168	59,420	1,634	6,062	59
Galveston, Tex	15,883	3,703	54	174	62,187	12,180	27,675	2,636
Kirkwood, Mo	4,865	1,526	17	91	39,195	3,339	10,732	2,127
Louisville, Ky.[2]	626	109	----	----	1,757	517	1,482	58
Memphis, Tenn	4,040	1,692	15	91	38,266	2,348	9,250	1,636

[1] Marine Hospital closed and third-class medical relief station opened on May 28, 1947.

[2] Marine Hospital closed and second-class medical relief station opened on Oct. 1, 1946.

TABLE 11.—*Transactions at U. S. Marine Hospitals and U. S. Public Health Service medical relief stations, fiscal year 1947*—Continued

Hospital or medical relief station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1947	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
MARINE HOSPITALS—con.								
Mobile, Ala	12, 957	2, 463	40	122	46, 455	10, 494	27, 948	2, 475
Neponsit Beach, N. Y	1, 022	575	25	270	83, 115	447	1, 614	303
New Orleans, La	29, 318	6, 850	123	390	138, 393	22, 468	71, 521	11, 389
Norfolk, Va	21, 476	5, 601	92	291	102, 273	15, 875	48, 072	9, 282
Pittsburgh, Pa	4, 772	1, 110	6	49	19, 046	3, 662	11, 858	1, 205
Portland, Maine	4, 044	1, 466	10	69	22, 523	2, 578	10, 516	1, 004
San Francisco, Calif	39, 213	6, 418	141	396	161, 482	32, 795	97, 085	11, 933
San Juan, P. R	5, 687	1, 400	4	74	27, 703	4, 287	14, 039	1, 211
Savannah, Ga	8, 075	2, 197	42	101	48, 366	5, 878	17, 781	3, 205
Seattle, Wash	37, 845	6, 224	156	374	149, 627	31, 621	79, 761	23, 208
Staten Island, N. Y	65, 598	14, 138	178	800	290, 279	51, 460	127, 295	1, 279
Vineyard Haven, Mass	1, 089	355	7	20	7, 441	734	3, 527	45
Contract overflow hospitals	187	187	7	38	18, 200	--------	--------	--------
Total	360, 845	84, 970	1, 413	5, 591	2,088,524	275, 875	800, 564	108, 134
SECOND- AND THIRD-CLASS STATIONS								
Aberdeen, Wash	390	23	--------	--------	99	367	723	32
Albany, N. Y	55	5	--------	--------	46	50	67	386
Alpena, Mich	69	2	--------	--------	4	67	107	7
Anacortes, Wash	102	9	--------	--------	22	93	182	6
Apalachicola, Fla	43	--------	--------	--------	--------	43	152	1
Ashland, Wis	179	25	--------	--------	217	154	245	--------
Ashtabula, Ohio	313	25	2	--------	226	288	707	48
Astoria, Oreg	958	131	--------	--------	628	827	2, 549	122
Balboa Heights, C. Z	3, 339	495	3	22	6, 788	2, 844	3, 817	--------
Bangor, Maine	2	--------	--------	--------	--------	2	3	174
Bath, Maine	94	--------	--------	--------	--------	94	166	--------
Baton Rouge, La	21	--------	--------	--------	--------	21	25	--------
Bay City, Mich	108	7	1	--------	22	101	135	2
Beaufort, N. C	163	--------	--------	--------	--------	163	514	--------
Bellingham, Wash	106	14	--------	--------	49	92	115	5
Biloxi, Miss	139	2	--------	--------	16	137	190	6
Brunswick, Ga	218	--------	--------	--------	--------	218	305	4
Burlington, Iowa	74	14	--------	--------	136	60	117	94
Cairo, Ill	657	88	--------	2	426	569	917	90
Calais, Maine	3	--------	--------	--------	--------	3	3	--------
Cambridge, Md	27	2	--------	--------	5	25	56	14
Cape May, N. J	1, 086	--------	--------	--------	--------	1, 086	2, 644	1
Charleston, S. C	6, 419	36	--------	--------	189	6, 383	9, 662	3, 895
Charlotte Amalie, V. I	560	18	--------	1	172	542	947	54
Cincinnati, Ohio	432	3	--------	--------	10	429	504	277
Coos Bay, Oreg	351	55	--------	--------	280	296	456	4
Cordova, Alaska	232	61	--------	2	536	171	476	6
Corpus Christi, Texas	845	135	--------	1	742	710	968	250
Crisfield, Md	197	2	--------	--------	3	195	427	16
Duluth, Minn	4, 031	179	5	2	1, 553	3, 852	6, 226	2, 024
Edenton, N. C	11	--------	--------	--------	--------	11	16	3
Elizabeth City, N. C	244	--------	--------	--------	--------	244	344	--------
El Paso, Tex	147	7	--------	--------	167	140	270	138
Erie, Pa	285	16	--------	1	272	269	655	62
Escanaba, Mich	55	9	--------	--------	106	46	46	6
Eureka, Calif	166	39	--------	--------	199	127	276	4
Evansville, Ind.[1]	11	4	--------	1	21	7	11	7
Fall River, Mass	96	21	--------	--------	121	75	213	60
Frankfort, Mich	57	--------	--------	--------	--------	57	148	11
Gallipolis, Ohio	241	7	--------	--------	53	234	576	125
Gary, Ind	58	5	--------	--------	7	53	73	39
Gloucester, Mass	284	5	--------	--------	16	279	640	9
Grand Haven, Mich	167	9	--------	--------	64	158	263	134
Green Bay, Wis	103	8	--------	--------	56	95	226	42
Gulfport, Miss	244	--------	--------	--------	--------	244	344	329
Honolulu, T. H	5, 569	523	3	14	7, 260	5, 046	13, 524	944
Houghton, Mich	72	5	--------	--------	18	67	68	6
Houston, Texas	2, 907	44	1	--------	142	2, 863	7, 096	2, 645
Indiana Harbor, Ind	321	8	--------	--------	50	313	503	25
Jacksonville, Fla	919	69	--------	1	309	850	1, 988	1, 121
Juneau, Alaska	791	80	1	4	612	711	1, 393	46
Ketchikan, Alaska	910	104	2	3	1, 176	806	1, 174	48
Key West, Fla	49	--------	--------	--------	--------	49	87	6
Kilmarnock, Va	327	--------	--------	--------	--------	327	1, 195	--------
La Crosse, Wis	40	1	--------	--------	9	39	62	8

TABLE 11.—*Transactions at U. S. Marine Hospitals and U. S. Public Health Service medical relief stations, fiscal year 1947*—Continued

Hospital or medical relief station	Total number of patients treated	Number of patients treated in hospitals	Died	Patients remaining in hospitals June 30, 1947	Number of days relief in hospitals	Number of patients furnished office relief	Number of times office relief was furnished	Number of physical examinations
SECOND- AND THIRD-CLASS STATIONS—continued								
Lewes, Del	447	67	3	4	432	380	649	3
Los Angeles, Calif	5,836	165	3	13	6,747	5,671	15,610	1,916
Louisville, Ky.[2]	1,079	109	2	11	2,064	970	5,733	182
Ludington, Mich	365	36	1	--------	221	329	451	546
Machias, Maine	33	--------	--------	--------	--------	33	94	2
Manistee, Mich	55	5	--------	--------	28	50	266	9
Manitowoc, Wis	276	37	--------	--------	249	239	549	15
Marquette, Mich	144	12	1	--------	77	132	212	9
Menominee, Mich	97	1	--------	--------	--------	96	171	18
Miami, Fla	6,016	263	3	8	3,161	5,753	13,604	919
Milwaukee, Wis	1,284	108	--------	2	1,477	1,176	2,471	1,935
Morehead City, N. C	694	103	1	3	694	591	1,415	36
Nashville, Tenn	22	--------	--------	--------	--------	22	45	183
Natchez, Miss	149	4	--------	--------	34	145	254	2
New Bedford, Mass	319	48	--------	--------	258	271	531	69
New Bern, N. C	49	--------	--------	--------	--------	49	108	10
New Haven, Conn	118	14	1	1	137	104	153	163
New London, Conn	175	19	1	1	301	156	233	175
Newport, Oreg	275	9	1	--------	96	266	423	--------
Newport, R. I	98	2	--------	--------	3	96	148	4
Newport News, Va	362	--------	--------	--------	--------	362	543	167
New York, N. Y. (Hudson St.)	72,027	--------	--------	--------	--------	72,027	276,950	34,111
Ogdensburg, N. Y	74	4	--------	--------	36	70	142	12
Olympia, Wash	57	3	--------	--------	5	54	64	1
Oswego, N. Y	98	6	--------	1	40	92	112	70
Paducah, Ky	1,002	6	--------	--------	10	996	2,463	118
Panama City, Fla	254	--------	--------	--------	--------	254	634	66
Pensacola, Fla	638	9	--------	--------	45	629	1,050	151
Perth Amboy, N. J	35	7	--------	--------	17	28	31	48
Petersburg, Alaska	160	22	--------	--------	287	138	634	--------
Philadelphia, Pa	12,544	725	2	14	6,370	11,819	41,819	8,530
Ponce, P. R	280	74	--------	3	485	206	292	21
Port Arthur, Tex	2,778	47	--------	1	110	2,731	5,812	1,303
Port Huron, Mich	318	19	--------	--------	147	299	743	138
Portland, Oreg	6,584	468	4	9	4,807	6,116	22,328	3,474
Port Townsend, Wash	79	1	--------	--------	8	78	161	--------
Providence, R. I	544	38	--------	1	343	506	1,069	1,266
Provincetown, Mass	410	--------	--------	--------	--------	410	1,304	7
Raymond, Wash	13	2	--------	--------	7	11	11	4
Reedville, Va	265	--------	--------	--------	--------	265	854	7
Richmond, Va	65	4	--------	--------	47	61	200	23
San Diego, Calif	1,677	12	--------	--------	33	1,665	5,679	823
Sandusky, Ohio	117	15	1	--------	47	102	127	15
San Pedro, Calif	8,384	442	2	14	4,724	7,942	19,763	6,612
Sault Ste. Marie, Mich	701	202	3	6	1,365	499	488	212
Seward, Alaska	366	97	--------	6	952	269	353	--------
Sheboygan, Wis	57	3	--------	--------	133	54	137	5
Sheepshead Bay, N. Y.[3]	4,014	--------	--------	--------	--------	4,014	15,573	3,280
Southport, N. C	853	37	--------	2	307	816	1,033	--------
Superior, Wis	396	43	--------	3	253	353	414	2
Tacoma, Wash	217	24	--------	1	176	193	417	21
Tampa, Fla	1,026	80	--------	--------	548	946	1,539	927
Toledo, Ohio	653	46	1	1	332	607	1,049	616
Vicksburg, Miss	395	9	--------	--------	30	386	828	9
Washington, D. C	31,655	520	1	21	5,434	31,135	119,081	22,181
Washington, N. C	48	3	--------	--------	38	45	62	1
Wilmington, N. C	684	50	1	--------	284	634	640	533
Wrangell, Alaska	59	14	--------	--------	134	45	104	--------
FOURTH-CLASS STATIONS								
Bridgeport, Conn	8	4	--------	--------	109	4	4	--------
Nome, Alaska	23	2	--------	--------	21	21	24	--------
Portsmouth, N. H	1	--------	--------	--------	--------	1	1	--------
Wilmington, Del	43	11	--------	1	95	32	65	--------
Total	202,782	6,346	50	181	66,585	196,436	632,313	104,286
Grand total	563,627	91,316	1,463	5,772	2,155,109	472,311	1,432,877	212,420

---

[3] Marine Hospital closed at end of fiscal year 1946 and replaced by second-class medical relief station.

TABLE 12.—*Distribution of medical services by class of beneficiary, U. S. Marine Hospitals,*[1] *fiscal year 1947*

Class of beneficiary	Hospital days		Out-patient treatments		Physical examinations (not related to treatment)	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
American merchant seamen	989, 931	47. 81	471, 536	58. 90	57, 336	53. 02
Veterans' Administration	397, 127	19. 18	2, 042	. 26	1, 749	1. 62
Coast Guard personnel	149, 748	7. 23	54, 980	6. 87	7, 191	6. 65
Bureau of Employees' Compensation	146, 383	7. 07	62, 006	7. 75	12, 782	11. 82
Persons afflicted with leprosy	138, 710	6. 70	6	(2)	--------	--------
Seamen, Engineer Corps, and Army Transport Service	57, 355	2. 77	27, 809	3. 47	335	. 31
Seamen from foreign vessels	42, 603	2. 06	5, 085	. 64	5	(2)
All others entitled to treatment	38, 779	1. 87	30, 456	3. 80	6, 537	6. 05
Public Health Service officers and employees	28, 735	1. 39	82, 877	10. 35	2, 073	1. 92
Immigrants and alien seamen	27, 648	1. 34	8, 903	1. 11	1, 389	1. 28
Coast Guard dependents	18, 134	. 88	35, 266	4. 41	45	. 04
Maritime Service	10, 906	. 53	2, 024	. 25	64	. 06
Navy and Marine Corps	7, 926	. 38	4, 164	. 52	28	. 03
Army and Selective Service	5, 812	. 28	2, 071	. 26	3	(2)
Public Health Service dependents	4, 314	. 21	7, 416	. 93	1	(2)
Work Projects Administration	3, 475	. 17	191	. 02	29	. 03
Coast and Geodetic Survey personnel	1, 707	. 08	2, 180	. 27	704	. 65
Coast and Geodetic Survey dependents	858	. 04	1, 384	. 17	2	(2)
Seamen, not enlisted or commissioned, from other Government vessels	173	. 01	168	. 02	--------	--------
Mariners for licenses	--------	--------	--------	--------	9, 678	8. 95
Federal employees for other purposes	--------	--------	--------	--------	8, 183	7. 57
Total	2, 070, 324	100. 00	800, 564	100. 00	108, 134	100. 00

[1] Does not include contract overflow facilities of Marine Hospitals, which furnished a total of 18,200 days of hospital relief, as follows: To American merchant seamen, 12,530; to Coast Guard personnel, 2,202; to Seamen, Engineer Corps, and Army Transport Service, 2,881; to Bureau of Employees' Compensation 411; to Maritime Service, 23; to all others, 153.

[2] Number less than 1/100 of 1 percent.

TABLE 13.—*Costs per patient-day in U. S. Marine Hospitals for in-patient care, fiscal year 1947*

Station	Annual average per diem cost (total)	Salaries [1]	Supplies and materials		All other expenses exclusive of furniture and equipment
			Subsistence	Other supplies	
Baltimore	$8. 91	$7. 00	$0. 96	$0. 72	$0. 23
Boston	8. 91	6. 56	1. 18	. 77	. 40
Buffalo	8. 52	6. 29	1. 09	. 62	. 52
Chicago	9. 08	6. 75	1. 24	. 75	. 34
Cleveland	8. 69	6. 52	1. 24	. 55	. 38
Detroit	8. 71	6. 68	1. 11	. 64	. 28
Ellis Island	10. 07	7. 81	1. 19	. 33	. 74
Evansville [2]	13. 04	10. 36	1. 05	. 94	. 69
Galveston	8. 16	6. 30	. 94	. 50	. 42
Kirkwood	9. 08	6. 69	1. 01	. 87	. 51
Memphis	8. 31	6. 16	1. 05	. 48	. 62
Mobile	8. 03	6. 09	. 93	. 68	. 33
New Orleans	7. 90	5. 94	1. 16	. 55	. 25
Norfolk	8. 92	6. 63	. 90	1. 11	. 28
Pittsburgh	10. 40	7. 91	1. 16	. 57	. 76
Portland	8. 75	6. 48	1. 11	. 81	. 35
San Francisco	7. 85	5. 87	1. 03	. 58	. 37
Savannah	8. 51	6. 46	. 92	. 50	. 63
Seattle	7. 99	6. 02	1. 10	. 66	. 21
Staten Island	8. 88	6. 71	1. 22	. 70	. 25
Vineyard Haven	10. 76	7. 83	1. 23	. 77	. 93
General hospitals	8. 68	6. 56	1. 10	. 66	. 36
Carville	8. 38	6. 29	1. 14	1. 24	. 29 cr.
Fort Stanton	8. 41	5. 77	1. 27	1. 70	. 33 cr.
Neponsit Beach	8. 27	6. 14	1. 36	. 67	. 10
All Marine Hospitals	8. 64	6. 51	1. 12	. 73	. 28
Total cost for in-patient care [3]					$17, 602, 304

[1] Includes the salaries of medical officers rendering services to patients.

[2] Station closed May 28, 1947.

[3] Exclusive of furniture and equipment.

Freedmen's Hospital

TABLE 14.—*Comparative data on volume and type of service, Freedmen's Hospital, fiscal years 1943–47*

	1947	1946	1945	1944	1943
Remaining in hospital beginning of fiscal year	481	458	451	426	461
Total admissions, including births	8, 212	9, 459	9, 296	9, 198	8, 857
Total in-patients under care	8, 693	9, 917	9, 747	9, 624	9, 318
Total discharges, including deaths	8, 302	9, 436	9, 289	9, 173	8, 892
Remaining in hospital end of fiscal year	391	481	458	451	426
Patient days' maintenance:					
General hospital	[1] 107, 450	126, 037	126, 050	122, 553	120, 185
TB annex	41, 790	40, 574	41, 398	43, 242	45, 431
Total days' maintenance	149, 240	166, 611	167, 448	165, 795	165, 616
Daily average number of patients:					
General hospital	[1] 294. 3	345. 2	345. 1	333. 8	329. 09
TB annex	114. 5	111. 2	113. 4	118. 0	124. 61
Total daily average	408. 8	456. 4	458. 5	451. 8	453. 70
Average number days' hospitalization per patient	17. 1	16. 9	17. 9	18. 08	18. 61
Deliveries:					
Live births	1, 210	2, 061	2, 102	1, 940	1, 915
Stillbirths	59	100	83	98	43
Total deliveries	1, 269	2, 161	2, 185	2, 038	1, 958
Out-patient visits—daily average number	275. 3	220. 1	232. 4	284. 08	221. 2
Accidents and emergency cases	29, 284	30, 977	22, 136	25, 000	30, 000

---

[1] Several wards closed in General Hospital.

TABLE 15.—*Discharges, autopsies, and consultations, by departments and services, Freedmen's Hospital, fiscal year 1947*

OBSTETRICS AND GYNECOLOGY

Service	Total discharges	Recovered	Improved	Unimproved	Died under 48 hours	Died over 48 hours	Autopsies	Consultations
Obstetrics:								
Delivered	1, 339	1, 336			1	2	2	10
Undelivered	131			130		1	0	8
Gynecology	1, 196		1, 136	39		21	4	36
Total	2, 666	1, 336	1, 136	169	1	24	6	54

MEDICINE

Service	Total discharges	Recovered	Improved	Unimproved	Died under 48 hours	Died over 48 hours	Autopsies	Consultations
General medicine	936		694	49	42	151	70	140
Medical pediatrics	393		351	5	12	25	16	27
Newborn	1, 265	1, 198		4	31	32	23	1
Neurology	172		145	25		2	0	23
Dermatology	152		148	3		1	0	7
Total	2, 918	1, 198	1, 338	86	85	211	109	198
T. B. Annex	130		76	8		46	12	

SURGERY

Service	Total discharges	Recovered	Improved	Unimproved	Died under 48 hours	Died over 48 hours	Autopsies	Consultations
General surgery	1, 354		1, 212	73	21	48	16	141
Orthopedics	295		270	13	2	10	1	33
Urology	293		263	12		18	7	22
E. N. T	345	329	3	12	1		1	
Pediatrics	119		113	5		1	0	3
Eye	49		46	2		1	0	6
Thoracic surgery	74		63	5	2	4	3	5
Oral surgery	48		47	1			0	9
Neuro surgery	11		11					2
Total	2, 588	329	2, 028	123	26	82	28	221

TABLE 16.—*Residence and pay status of patients admitted to Freedmen's Hospital, fiscal year 1947*

Pay status	Residence: District of Columbia	Residence: Outside the District	Residence: Total
Full pay	4,775	1,089	5,864
Part pay	143	93	236
Free	670	1,442	2,112
Total	5,588	2,624	8,212

TABLE 17.—*Appropriations and expenditures, Freedman's Hospital, fiscal year 1947*

Annual appropriation		$921,000
Deficiency appropriation		390,500
Total appropriated funds		1,311,500
Transferred to Public Buildings Administration for building maintenance	$115,000	
Transferred to U. S. Public Health Service for stationary supplies	2,750	
Transferred to Howard University for salaries for technical personnel	46,995	
Total transferred		164,745
Balance appropriated funds available for salaries and expenses		1,146,755
Transferred from U. S. Public Health Service for cadet nurses' training		10,322
Transferred from Federal Security Agency for deficiency—salaries		119,400
Receipts fom pay patients		193,623
Gross amount available for operation		1,470,100
Gross expenditures as of June 30, 1947		1,466,787
Unencumbered balance		3,313

Hospitals for Drug Addicts and Mental Patients

TABLE 18.—*Patient movement at the United States Public Health Service Hospital, Lexington, Ky., for the fiscal year 1947*

	Male	Female
Population June 30, 1946	1,104	101
ADMITTED DURING FISCAL YEAR 1947		
Prisoners:		
Received direct from United States courts	442	23
Received by transfer from other Federal institutions	41	3
Conditional release and parole violators returned	51	4
Returned from escape	10	0
Returned from writ, leave, funeral, etc. (temporary discharge)	41	0
Prisoners held awaiting trial	11	3
	596	34
Probationers:		
Received direct from United States courts	132	44
Returned from writ, leave, funeral, etc	10	4
Returned for further treatment	19	9
Returned for observation	2	1
Status changed from prisoner to probationer	1	0
	164	58
Voluntary patients:		
Regular admission	1,068	232
Returned from leave	42	12
Returned for observation	3	0
	1,113	244

TABLE 18.—*Patient movement at the United States Public Health Service Hospital, Lexington, Ky., for the fiscal year 1947*—Continued

	Male	Female
ADMITTED DURING FISCAL YEAR 1947—continued		
Executive order patients:		
Regular admission	0	0
Readmission (temporary discharge)	0	0
Status changed from Public Health Service beneficiary to executive order patient	1	0
	1	0
Public Health Service beneficiaries:		
Regular admission	12	0
Readmission (temporary discharge)	0	0
Returned for further treatment	1	0
	13	0
Immigration and Naturalization Service patients: Regular admission	0	0
War Department beneficiaries:		
Regular admission	0	0
Returned from leave	0	0
	0	0
Navy Department beneficiaries:		
Regular admission	1	0
Returned from leave	1	0
	2	0
Personnel patients: Regular admission	33	20
Special-study case patients:		
Regular admission	18	8
Readmission (temporary discharge)	0	5
Returned for further treatment	0	1
	18	14
Emergency medical service beneficiaries: Regular admission	0	0
Total admissions	1,940	370
Grand total	2,310	------------
DISCHARGED DURING FISCAL YEAR 1947		
Prisoners:		
On parole	76	11
On conditional release	295	30
Short-term expiration	31	1
Full-term expiration	48	7
Transferred to other Federal institutions	110	22
To United States marshal for trial	10	4
On writ, leave, funeral, etc	39	1
By death	8	0
By escape	6	0
Status changed from prisoner to probationer	1	0
Paroled for deportation	1	0
On re-parole	0	0
To United States court, Lexington, Ky	1	0
	626	76
Probationers:		
Cured	116	39
On writ, leave, funeral, etc	11	6
Observation study completed	3	1
By escape	0	0
Improved	0	0
Cured: To United States marshal	2	0
By death	1	0
Full-term expiration	1	0
Conditions of probation set aside	1	0
Against medical advice	2	0
Maximum benefit	0	2
	137	48
Voluntary patients:		
Cured	67	22
Maximum benefit	1	1
Against medical advice	839	174
On leave	126	18
By death	7	1
Detriment to station	5	2

TABLE 18.—*Patient movement at the United States Public Health Service Hospital, Lexington, Ky., for the fiscal year 1947*—Continued

	Male	Female
DISCHARGED DURING FISCAL YEAR 1947—continued		
Observation study completed	3	0
Elopement	4	0
	1,052	218
Executive-order patients:		
Improved	0	0
Transferred	1	0
Recovered	0	0
Against medical advice	1	0
On visit, leave, etc	0	0
By death	4	0
To U. S. Immigration and Naturalization Service	2	0
	8	0
Public Health Service beneficiaries:		
Improved	8	0
Recovered	1	0
Transferred	0	0
Against medical advice	3	0
On visit, leave, etc	1	0
Status changed to emergency medical beneficiary	0	0
Without psychosis	0	0
Status changed to executive order	1	0
To U. S. Immigration and Naturalization Service	0	0
	14	0
Bureau of immigration patients:		
Improved	0	0
To U. S. Immigration and Naturalization Service	9	0
Paroled to U. S. Immigration and Naturalization Service	0	0
Paroled by U. S. Immigration and Naturalization Service	0	0
Released from internment by Attorney General	0	0
	9	0
War Department beneficiaries:		
Improved	0	0
Transferred	3	0
On leave	0	0
By death	5	0
	8	0
Navy Department beneficiaries:		
Improved	2	0
Transferred	1	0
On leave	1	0
By death	1	0
	5	0
Personnel patients:		
Against medical advice	1	0
Improved	26	16
Recovered	3	2
On leave	0	1
Observation completed	0	1
Unimproved	0	0
By death	2	0
	32	20
Special-study case patients:		
Recovered	1	1
Improved	8	4
Against medical advice	4	0
Unimproved	1	1
Observation completed	3	0
Leave of absence	0	5
Unchanged	0	1
By death	1	1
To sheriff, Fayette County, Ky	1	0
	19	13
Emergency medical service patients: Transferred	0	0
Total discharges	1,910	375
Grand total	2,285	----------
Population June 30, 1947	1,230	----------
Average daily population for fiscal year	----------	1,239

TABLE 19.—*Patient movement at the United States Public Health Service Hospital, Forth Worth, Tex., for the fiscal year 1947*

	Immigration and Naturalization Service patients	Veterans Administration patients	Public Health Service patients	Probationers	Prisoners	Voluntary patients	Executive order patients	Total
Patient movement:								
Population, June 30, 1946	3	0	25	0	2	4	702	736
Admission	1	357	1,626	5	108	238	55	2,390
Readmission		68	350	0	2	27	80	527
Temporary discharges		91	351	0	4	32	40	518
Discharges	3	97	1,198	0	12	191	737	2,238
Population, June 30, 1947	1	237	452	5	96	46	60	897
ANALYSIS OF ADMISSIONS								
Admissions:								
Direct	1	357	1,002	5	108	238	54	1,765
Change of status			624				1	625
Total	1	357	1,626	5	108	238	55	2,390
Readmissions:								
Return from visit		49	50		2	24	0	125
Return from elopement		3	45		0	0	1	49
Discharged from visit		16	255		0	3	79	353
Total		68	350		2	27	80	527
ANALYSIS OF DISCHARGES								
Temporary discharges:								
Visits		85	299		2	31	39	456
Elopements		6	52		2	1	1	62
Total		91	351		4	32	40	518
Discharges:								
Change of status			1				624	625
Parole					1			1
Conditional release					2			2
Expiration					1			1
Death			7				3	10
Not addicts						2		2
Transferred to Public Health Service and Veterans Administration		1	38		8		3	50
Navy transfers			307				23	330
Cured						10		10
Against medical advice		60	12			177	1	250
Not psychotic		7	97				9	113
Recovered		1	356				30	387
Improved	3	25	369			1	43	441
Not improved		3	11			1	1	16
Total	3	97	1,198		12	191	737	2,238

Analysis of prognosis of addict patients: Addicts prognosis........ Good, 5; fair, 1; poor, 185.

Patient days:

Total	253,776
Average	695.28

Federal Penal and Correctional Institutions

TABLE 20.—*U. S. Public Health Service personnel, treatments, examinations, hospitalization and deaths compared with average inmate population for each Federal institution for fiscal year ended June 30, 1947*

[Based upon reports furnished the U. S. Public Health Service by medical departments of the Federal penal and correctional institutions]

Item	All institutions	Penitentiaries, for—						Reformatories, for—						
		Intractable male offenders, Alcatraz, Calif.	Habitual tractable male offenders		Older improvable male offenders			Agricultural-type male offenders, Petersburg, Va.	Younger improvable male offenders			Male juvenile offenders		Female offenders
			Atlanta, Ga.	Leavenworth, Kans.	Lewisburg, Pa.	McNeil Island, Wash.	Terre Haute, Ind.		Chillicothe, Ohio	El Reno, Okla.	Englewood, Colo.	National Training School for Boys, D. C.	Natural Bridge, Va.	Alderson, W. Va.
Personnel (June 30, 1947):														
Medical officers:														
Full time	48	1	4	4	3	3	3	1	2	2	1	1	----	2
Part time	62	----	3	3	2	4	3	2	2	3	4	2	1	2
Dental officers:														
Full time	17	1	1	1	1	1	1	1	1	1	(1)	1	----	1
Part time	5	----	----	----	----	----	----	----	----	----	(1)	----	(2)	----
Nurses	22	----	2	2	2	2	1	----	2	1	----	----	----	6
Psychologists	7	----	2	----	----	----	----	----	1	1	----	1	----	----
All others	234	4	4	5	5	3	4	5	4	4	4	4	1	2
Total Public Health Service	395	6	16	15	13	13	12	9	12	12	9	9	2	13
Hospital bed capacity (normal)	2, 326	44	133	165	64	94	107	46	70	44	25	30	8	50
Average daily institution population	17, 856	260	2, 093	2, 352	1, 249	1, 175	1, 077	558	1, 430	1, 124	428	454	69	448
Average daily hospital population	1, 171	7	67	65	28	31	29	16	23	15	7	8	1	13
Surgical operations	8, 063	29	1, 259	543	92	470	331	214	774	290	121	95	----	276
Hospital relief-days	424, 766	2, 442	24, 465	22, 213	10, 359	11, 144	10, 457	6, 293	8, 271	5, 575	2, 186	3, 026	183	4, 672
Deaths	47	----	3	4	----	7	1	1	1	----	----	----	----	1
Out-patient departments:														
Number of times inmates reported:														
Medical	344, 203	21, 932	63, 995	34, 517	7, 209	24, 870	17, 194	8, 931	12, 257	15, 407	8, 528	4, 617	1, 872	10, 094
Surgical	68, 302	1, 636	23, 117	3, 718	5, 443	3, 478	5, 390	974	3, 270	2, 221	1, 426	1, 085	913	575
Dental	118, 141	2, 234	7, 349	19, 015	6, 738	7, 425	8, 380	7, 053	8, 695	8, 384	594	3, 615	65	6, 509
Eye, ear, nose, and throat	44, 376	2, 753	2, 435	5, 494	4, 428	1, 193	3, 204	1, 095	1, 928	571	690	659	43	659

Physiotherapy	71, 244	1, 857	10, 942	7, 723	2, 124	1, 339	2, 795	591	6, 411	1, 418	209	367	--------	2, 011
Psychiatric	27, 823	57	2, 658	1, 865	1, 797	443	2, 172	6	924	212	1, 187	191	--------	104
Psychological	24, 245	375	1, 190	--------	2, 355	805	968	622	3, 220	6, 916	--------	733	--------	245
Venereal disease	67, 403	824	7, 780	5, 906	3, 487	2, 854	1, 799	2, 955	1, 003	3, 730	707	758	2	4, 709
X-ray	22, 955	491	2, 585	901	1, 868	1, 476	1, 275	357	1, 013	894	343	162	2	566
Others	81, 225	180	1, 473	573	--------	291	5, 845	145	55, 872	7, 059	751	1, 204	--------	3, 313
Total	869, 917	32, 339	123, 524	79, 712	35, 449	44, 174	49, 022	22, 729	94, 593	46, 812	14, 435	13, 391	2, 897	28, 785
Laboratory service	140, 588	654	10, 042	9, 735	5, 443	3, 850	1, 975	3, 564	3, 556	5, 281	1, 129	669	167	14, 453
Pharmacy service (prescriptions dispensed)	484, 220	27, 187	77, 179	104, 202	77, 998	24, 614	31, 828	16, 732	6, 096	19, 700	3, 097	3, 215	133	4, 978
Number of routine physical and neuropsychiatric examinations	39, 644	217	3, 116	1, 457	1, 883	1, 119	1, 101	773	2, 990	2, 541	444	944	233	2, 110
Number of vaccinations	56, 596	43	5, 278	3, 717	1, 476	2, 931	2, 407	2, 014	4, 283	4, 913	2, 119	2, 942	217	1, 223

Item	Correctional institutions, for short-term male offenders								Prison camps for minimum-custody-type improvable male offenders				Detention headquarters for males awaiting trial or with short sentences, New York, N. Y.	Medical center, for physically and mentally maladjusted male offenders, Springfield, Mo.
	Ashland, Ky.	Danbury, Conn.	La Tuna, Tex.	Milan, Mich.	Sandstone, Minn.	Seagoville, Tex.	Tallahassee, Fla.	Texarkana, Tex.	Columbia Camp, Benton City, Wash.	Mill Point, W. Va.	Montgomery, Ala.	Tucson, Ariz.		
Personnel (June 30, 1947):														
Medical officers:														
Full time	2	1	1	1	1	1	1	1	--------	--------	1	--------	--------	11
Part time	4	2	2	2	--------	4	3	3	1	1	--------	1	1	7
Dental officers:														
Full time	1	1	--------	(1)	1	1	(1)	(1)	--------	--------	--------	--------	1	1
Part time	--------	--------	1	(1)	--------	--------	(1)	(1)	1	1	1	1	--------	--------
Nurses	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	4
Psychologists	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	2
All others	4	4	3	4	3	4	4	3	1	1	1	1	3	149
Total Public Health Service	11	8	7	7	5	10	8	7	3	3	3	3	5	174
Hospital bed capacity (normal)	29	33	23	34	27	53	24	29	8	8	19	8	9	1, 142
Average daily institution population	402	499	629	511	275	291	366	407	181	111	174	228	182	883
Average daily hospital population	16	22	15	18	4	12	11	7	1	1	4	3	9	738
Surgical operations	351	188	191	299	69	87	227	218	2	7	19	137	3	1, 771
Hospital relief days	5, 641	7, 839	5, 470	6, 498	1, 639	4, 212	4, 137	2, 423	191	183	1, 433	1, 149	3, 305	269, 370
Deaths	1	2	5	--------	--------	--------	2	--------	1	--------	--------	--------	1	17

TABLE 20.—*U. S. Public Health Service personnel, treatments, examinations, hospitalization and deaths compared with average inmate population for each Federal institution for fiscal year ended June 30, 1947*—Continued

Item	Correctional institutions, for short-term male offenders								Prison camps for minimum-custody-type improvable male offenders				Detention headquarters for males awaiting trial or with short sentences, New York, N. Y.	Medical center, for physically and mentally maladjusted male offenders, Springfield, Mo.
	Ashland, Ky.	Danbury, Conn.	La Tuna, Tex.	Milan, Mich.	Sandstone, Minn.	Seagoville, Tex.	Tallahassee, Fla.	Texarkana, Tex.	Columbia Camp, Benton City, Wash.	Mill Point, W. Va.	Montgomery, Ala.	Tucson, Ariz.		
Out-patient departments:														
Number of times inmates reported:														
Medical	5, 713	12, 715	8, 566	10, 282	10, 642	3, 941	10, 157	11, 488	7, 822	2, 501	6, 023	5, 319	10, 675	6, 936
Surgical	2, 658	1, 574	1, 664	1, 171	69	438	1, 250	1, 145	1, 092	912	788	1, 883	159	253
Dental	1, 864	6, 919	1, 908	1, 727	3, 315	2, 758	1, 319	1, 381	354	1, 213	722	596	1, 347	6, 662
Eye, ear, nose and throat	1, 249	1, 003	6, 190	1, 216	434	44	806	1, 846	804	610	573	1, 025	1, 553	1, 871
Physiotherapy	4, 365	7, 421	959	1, 434	1, 282	938	813	520	1, 085	208	173	1, 592	1, 063	11, 604
Psychiatric	1, 210	804	588	212	487	--------	5	625	3	--------	--------	982	319	10, 972
Psychological	597	1, 052	129	--------	306	--------	599	1, 048	--------	--------	--------	195	179	2, 711
Venereal disease	1, 138	5, 639	7, 320	1, 346	461	800	3, 461	3, 809	89	275	1, 254	717	1, 172	3, 408
X-ray	454	517	239	830	359	421	354	304	97	43	7	73	349	6, 975
Others	844	1, 353	183	184	1, 102	145	--------	--------	--------	--------	2	--------	202	504
Total	20, 092	38, 997	27, 746	18, 402	18, 457	9, 485	18, 764	22, 166	11, 346	5, 762	9, 542	12, 382	17, 018	51, 896
Laboratory service	2, 403	3, 798	3, 886	2, 125	1, 319	2, 075	2, 511	5, 734	44	215	1, 849	2, 618	2, 920	48, 573
Pharmacy service (prescriptions dispensed)	8, 220	9, 134	1, 776	6, 247	3, 738	2, 574	11, 238	9, 408	11, 012	3, 296	1, 744	443	393	18, 038
Number of routine physical and neuropsychiatric examinations	1, 308	3, 096	2, 725	1, 013	570	456	580	1, 117	17	216	955	1, 333	3, 403	3, 927
Number of vaccinations	1, 784	3, 538	4, 133	1, 391	719	813	2, 153	1, 836	2	717	1, 585	2, 742	881	739

---

[1] Services performed by outside dentists on fee basis.

[2] Services performed by dental officer from National Training School, Washington, D. C.

Foreign Quarantine Activities:

TABLE 21.—*Summary of transactions at Maritime Quarantine Stations (vessel traffic only) during the fiscal year 1947*

Station	Vessels inspected			Vessels granted pratique		Vessels fumigated	Deratization exemption certificates issued	Passengers inspected	Crew inspected	Port sanitary statements issued
	Quarantine and immigration	Immigration only	Total	Free or radio	Provisional					
Aberdeen, Wash.	1	0	1	1	0	0	1	0	38	143
Anacortes, Wash.	0	0	0	0	0	0	0	0	0	2
Aransas Pass, Tex.	37	0	37	37	0	0	0	0	901	0
Baltimore, Md.	1, 541	126	1, 667	1, 322	219	58	706	4, 737	61, 721	8, 299
Boston, Mass.	523	297	820	223	300	12	97	3, 418	21, 516	2, 212
Brownsville, Tex.	670	0	670	601	69	1	38	217	10, 819	731
Brunswick, Ga.	3	0	3	3	0	0	0	16	319	0
Charleston, S. C.	342	0	342	227	115	23	92	4, 612	14, 831	793
Corpus Christi, Tex.	51	0	51	51	0	0	0	54	2, 099	221
Eureka, Calif.	0	0	0	0	0	0	0	0	0	2
Fall River, Mass.	3	0	3	3	0	0	0	0	260	7
Fernandina (Cumberland Sound) Fla.	6	0	6	6	0	0	0	0	229	16
Fort Lauderdale (Port Ever.) Fla.	157	156	313	57	100	2	0	70	4, 471	405
Fort Monroe, Va.	1, 475	75	1, 550	929	546	24	514	3, 031	67, 984	2, 805
Galveston, Tex.	1, 009	14	1, 023	874	135	18	283	1, 357	33, 939	6, 698
Gloucester, Mass.	0	0	0	0	0	0	0	0	180	0
Gulfport, Miss.	27	0	27	27	0	0	0	15	459	10
Harbor Island, Tex.	35	0	35	35	0	0	0	0	1, 010	0
Jacksonville, Fla.	98	148	246	72	26	1	59	816	6, 191	660
Key West, Fla.	35	0	35	35	0	0	3	2	254	19
Los Angeles, Calif.	765	172	937	557	208	49	195	2, 472	26, 616	3, 231
Miami, Fla.	1, 017	1, 448	2, 465	782	235	18	463	4, 913	18, 878	4, 180
Mobile, Ala.	663	13	676	496	167	0	273	1, 209	28, 929	4, 041
New Bedford, Mass.	3	0	3	3	0	0	0	12	34	2
New London, Conn.	4	0	4	4	0	0	0	147	1, 545	10
New Orleans, La.	1, 309	238	1, 547	961	348	9	402	8, 785	58, 798	9, 099
Newport, R. I.	2	0	2	2	0	0	0	0	88	21
New York, N. Y.	3, 623	1, 475	5, 098	2, 090	1, 533	89	1, 541	345, 977	244, 231	33, 665
Olympia, Wash.	0	0	0	0	0	0	0	0	0	150
Pensacola, Fla.	100	44	144	74	26	0	16	146	4, 337	283
Philadelphia, Pa. (Marcus Hook)	1, 232	203	1, 435	736	496	54	423	2, 852	55, 679	5, 241
Portland, Maine	216	0	216	216	0	0	35	107	8, 918	178
Portland, Oreg.	278	0	278	235	43	6	154	286	11, 510	1, 843
Providence, R. I.	49	0	49	47	2	0	6	18	1, 917	70
Raymond, Wash.	4	0	4	4	0	0	0	12	155	6
Sabine, Tex.	279	43	322	229	50	4	74	266	12, 290	82
San Diego, Calif.	479	9	488	349	130	0	208	4, 943	7, 040	3, 405
San Francisco, Calif.	625	1	626	470	155	8	417	80, 558	42, 465	0

TABLE 21.—*Summary of transactions at Maritime Quarantine Stations (vessel traffic only) during the fiscal year 1947*—Continued

Station	Vessels inspected			Vessels granted pratique		Vessels fumigated	Deratization exemption certificates issued	Passengers inspected	Crew inspected	Port sanitary statements issued
	Quarantine and immigration	Immigration only	Total	Free or radio	Provisional					
San Luis Obispo, Calif	8	0	8	8	0	0	3	0	314	0
Savannah, Ga	148	89	237	111	37	1	64	291	10, 334	750
Searsport, Maine	3	0	3	3	0	0	1	0	119	0
Seattle, Wash	264	61	325	97	167	6	266	13, 086	11, 332	1, 505
Tacoma, Wash	0	2	2	0	0	0	0	0	204	893
Tampa, Fla	777	153	930	614	163	28	79	594	13, 344	2, 639
Washington, D. C	2	8	10	2	0	0	1	12	272	33
West Palm Beach, Fla	0	245	245	0	0	0	0	227	4, 146	528
Wilmington, N. C	15	0	15	13	2	0	0	51	526	26
Total	17, 878	5, 020	22, 898	12, 606	5, 272	411	6, 414	485, 309	791, 242	94, 904
INSULAR										
Hawaii	846	0	846	799	47	11	53	65, 748	44, 200	332
Puerto Rico	662	26	688	562	100	1	146	1, 630	13, 490	374
Virgin Islands	533	0	533	392	141	0	2	3, 677	12, 545	757
Total, all stations	19, 919	5, 046	24, 965	14, 359	5, 560	423	6, 615	556, 364	861, 477	96, 367

TABLE 22.—*Transactions at United States airports of entry for airplanes from foreign ports,*[1] *summary of transactions at continental and insular stations during fiscal year 1947*

Location	Name of airport	Number of planes inspected for quarantine and immigration	Number of planes inspected for immigration only	Total number of planes inspected	Number of crew inspected	Number of passengers inspected	Number of aliens examined (passengers and crew)	Number of aliens certified
Baltimore, Md	Baltimore Airport [2]	5	175	180	1, 612	6, 925	3, 167	0
Boston, Mass	Bedford & Logan [2]	203	52	255	1, 932	6, 140	4, 111	205
Brownsville, Tex	Rio Grande Valley Airport	2, 034	0	2, 034	5, 932	14, 966	5, 458	33
Buffalo, N. Y	Municipal	1	0	1	14	25	17	0
Calexico, Calif	Calexico Municipal	36	0	36	0	0	0	0
Charleston, S. C	Charleston Airport [2]	135	0	135	352	3, 076	2, 136	0
Charlotte Amalie, V. I	Charlotte Amalie Airport [2]	85	0	85	258	707	371	0
Chicago, Ill	Chicago Municipal Airport [2]	41	0	41	385	961	403	36

Christiansted, V. I	Christiansted Seaplane Base [2]	1	0	1	1	0	1	1
Dallas, Tex	Love Field [2]	13	0	13	50	336	129	2
Detroit, Mich	(Detroit Municipal and Wayne County Airport)	0	513	513	1,257	950	29	0
Eagle Pass, Tex	Eagle Pass Airport	64	0	64	70	82	5	0
El Paso, Tex	Municipal Airport	502	0	502	1,485	6,259	1,969	2
Fort Lauderdale, Fla	Forman Field, Hollywood Airport [2]	0	65	65	183	408	20	0
Fort Worth, Tex	Meacham Field (from July 1, 1946 through Oct. 31, 1946).[2]	141	0	141	412	2,120	711	11
Hartford, Conn	Brainard Field [2]	14	0	14	108	533	146	0
Honolulu, T. H	Honolulu Airport [2]	4,067	0	4,067	2,645	7,014	0	0
Houston, Tex	Houston Municipal [2]	325	0	325	1,450	5,448	1,961	31
Jacksonville, Fla	Jacksonville Municipal [2]	24	1	25	82	47	30	0
Key West, Fla	Meacham [2]	0	515	515	1,483	6,575	905	1
Lake Charles, La	Lake Charles Municipal [2]	1	0	1	5	31	9	0
Laredo, Tex	Laredo Municipal [3]	439	0	439	1,696	2,989	1,186	8
Long Beach, Calif	Long Beach Municipal [2]	3	0	3	6	18	9	0
Los Angeles, Calif. (Burbank)	Lockheed Air Terminal [2]	728	0	728	3,279	17,077	9,338	32
Mayaguez, P. R	Mayaguez Airport [2]	1	15	16	50	22	1	0
Miami, Fla	Chalk's Flying Service Seaplane Base [3]	8,458	9,872	18,330	67,952	266,334	87,474	1,277
Mobile, Ala	Bates Field [2]	1	0	1	6	39	23	0
Newark, N. J	Newark Airport [2]	13	18	31	171	568	302	4
New Orleans, La	Municipal Airport (Moisant) [2]	726	0	726	2,935	17,058	7,202	0
New York, N. Y	LaGuardia Field [2]	2,997	4,586	7,583	46,490	188,827	104,043	2,740
Nogales, Ariz	Nogales Municipal Airport	527	1	528	1,249	4,051	3,567	2
Norfolk, Va	Norfolk Naval Air Station [2]	3	0	3	24	79	60	0
Ogdensburg, N. Y	Ogdensburg Municipal [3]	0	59	59	66	67	0	0
Philadelphia, Pa	Southwest Airport [2]	49	81	130	533	1,468	491	0
Ponce, P. R	Losey Field [2]	2	0	2	5	0	0	0
St. Croix, Frederiksted, V. I	St. Croix Airport [2]	36	0	36	50	37	71	0
San Antonio, Tex	Municipal Airport [2]	935	0	935	3,068	21,209	7,799	75
San Diego, Calif	San Diego Municipal Airport (Lindbergh Field)	74	577	651	751	1,039	64	1
San Juan, P. R	Isla Grande Airport	2,624	0	2,624	10,802	39,688	18,711	30
Savannah, Ga	Hunter Field [2]	7	0	7	34	40	45	0
Seattle, Wash	Boeing Municipal Field	7	2,628	2,635	7,768	33,546	4	0
Tampa, Fla	Pinellas County Airport, Drew Field, MacDill Field.[2]	252	252	504	1,753	6,892	2,311	45
Washington, D. C	National Airport [2]	113	9	122	937	3,646	2,067	56
West Palm Beach, Fla	Lantana, Roosevelt [2]	176	58	234	539	2,219	1,926	0
Total		25,863	19,477	45,340	169,880	669,516	268,272	4,592

---

[1] Airports at which there were no transactions during the year have been omitted.
[2] Not officially designated.
[3] Temporary permission.

Table 23.—*Summary of quarantine transactions on the Mexican border during the fiscal year 1947*

Station	Number of persons arriving from interior of Mexico inspected	Number of local persons inspected (border-town residents)	Total number of persons inspected	Total number of persons disinfested	Number of persons passed not requiring treatment	Number of persons vaccinated against smallpox	Number of sick persons refused admission
Brownsville, Tex	24,692	2,719,514	2,744,206	0	2,743,137	1,069	0
Columbus, N. Mex	32	1,251	1,283	0	1,260	23	0
Del Rio, Tex	1,215	331,265	332,480	0	332,046	434	0
Douglas, Ariz	133	531	664	0	656	0	8
Eagle Pass, Tex	118,294	1,500,444	1,618,738	0	1,617,071	1,667	0
El Paso, Tex.[1]	46,789	4,401,659	4,448,448	0	4,440,591	7,857	0
Hidalgo, Tex	69,679	1,727,599	1,797,278	142	1,789,211	7,925	0
Laredo, Tex.[2]	238,016	6,189,480	6,427,496	0	6,423,978	3,518	0
Naco, Ariz	0	673	673	0	673	0	0
Nogales, Ariz	4,763	3,259	8,022	123	5,326	2,542	31
Presidio, Tex	1,081	127,441	128,522	0	126,097	2,425	0
Rio Grande City, Tex	217	25,634	25,851	0	25,841	10	0
Roma, Tex	935	241,421	242,356	0	242,326	30	0
San Ysidro, Calif	3,783	4,094	7,877	0	7,513	364	0
Thayer (Mercedes), Tex	104	104,387	104,491	0	104,440	51	0
Zapata, Tex	0	16,383	16,383	0	16,303	80	0
Total	509,733	17,395,035	17,904,768	265	17,876,469	27,995	39

[1] Includes Fort Hancock, Guadalupe Gate, and Ysleta.

[2] Includes Dolores and San Ignacio.

Table 24.—*Applicants for immigration visas medically examined and certified during the fiscal year 1947*

Country and consular office	Number of applicants examined in each class			Total number of applicants examined	Number of applicants certified		
	Quota immigrants	Nonquota immigrants	Nonimmigrants		Class A	Class B	Total
WESTERN HEMISPHERE							
Cuba, Havana	712	2,932	0	3,644	10	403	413
Mexico	158	1,477	99	1,734	21	252	273
Canada, total	7,708	18,119	2,471	28,298	118	5,517	5,635
Montreal	3,224	5,151	37	8,412	29	2,862	2,891
Niagara Falls	486	716	0	1,202	1	98	99
Quebec	0	502	0	502	4	144	148
Toronto	1,771	4,916	92	6,779	39	1,083	1,122
Vancouver	906	2,694	0	3,600	2	217	219
Windsor	970	2,676	1	3,647	40	773	813
Winnipeg	351	1,464	2,341	4,156	3	340	343
Total, Western Hemisphere	8,578	22,528	2,570	33,676	149	6,172	6,321
EASTERN HEMISPHERE							
Europe, total	48,614	8,176	2,139	58,929	644	12,630	13,274
Czechoslovakia, Prague	61	126	20	207	6	101	107
England, London	19,546	721	26	20,293	212	4,232	4,444
France, Paris	3,833	1,062	1,137	6,032	5	743	748
Germany:							
Berlin	2,946	100	0	3,046	42	1,398	1,440
Bremen	1,435	76	0	1,511	58	661	719
Frankfurt	4,617	101	15	4,733	156	1,928	2,084
Munich	5,428	135	45	5,608	48	1,450	1,498
Stuttgart	3,192	145	105	3,442	21	560	581
Italy:							
Genoa	1,217	695	317	2,229	6	395	401
Naples	2,511	4,724	380	7,615	77	326	403
Netherlands, Rotterdam	3,828	257	83	4,168	13	826	839
Poland, Warsaw	0	34	11	45	0	10	10
Asia: China, Shanghai	1,406	304	932	2,642	35	795	830
Total, Eastern Hemisphere	50,020	8,480	3,071	61,571	679	13,425	14,104
Total, Western and Eastern Hemispheres	58,598	31,008	5,641	95,247	828	19,597	20,425

TABLE 25.—*Aliens medically inspected and certified at continental and insular ports and at border stations during the fiscal year 1947*

Place	Number of alien passengers examined	Alien passengers certified					Number of alien crew examined	Alien crew certified				
		Class A		Class B	Class C	Total		Class A		Class B	Class C	Total
		1	2					1	2			
ATLANTIC COAST												
Baltimore, Md	5,142	0	0	27	3	30	31,211	0	107	1	14	122
Boston, Mass	6,679	8	7	272	17	304	16,070	1	62	11	9	83
Brunswick, Ga	0	0	0	0	0	0	23	0	0	0	0	0
Charleston, S. C	3,818	0	0	0	0	0	7,493	0	17	0	0	17
Fall River, Mass	0	0	0	0	0	0	175	0	0	0	0	0
Fernandina, Fla	0	0	0	0	0	0	83	0	0	0	0	0
Fort Lauderdale (Port Everglades), Fla	63	0	0	0	0	0	4,180	0	15	1	0	16
Fort Monroe, Va	2,299	0	0	105	1	106	36,512	0	0	4	0	4
Gloucester, Mass	0	0	0	0	0	0	219	0	0	0	0	0
Jacksonville, Fla	187	1	0	0	0	1	4,502	0	27	0	0	27
Key West, Fla	72	0	0	0	0	0	232	0	0	0	0	0
Miami, Fla	83,186	43	14	1,263	12	1,332	26,726	1	38	2	0	41
New Bedford, Mass	12	0	0	0	1	1	1	1	0	0	0	1
New London, Conn	0	0	0	0	0	0	147	0	0	0	0	0
New York, N. Y	170,591	144	113	19,050	128	19,435	152,923	104	464	16	75	659
Philadelphia, Pa	2,256	0	4	0	0	4	24,094	0	197	0	0	197
Portland, Maine	111	0	0	0	0	0	4,334	31	0	0	6	37
Providence, R. I	0	0	0	0	0	0	474	0	6	0	0	6
Savannah, Ga	178	0	1	1	0	2	3,100	0	6	1	0	7
West Palm Beach, Fla	1,875	0	0	0	0	0	3,880	0	0	0	0	0
Wilmington, N. C	18	0	0	0	0	0	61	0	0	0	0	0
Total	276,487	196	139	20,718	162	21,215	316,440	138	939	36	104	1,217
GULF COAST												
Corpus Christi, Tex	44	0	0	0	0	0	1,206	0	0	0	0	0
Fort Worth, Tex	753	0	0	13	0	13	0	0	0	0	0	0
Galveston, Tex	980	5	0	0	0	5	16,589	84	0	0	0	84
Gulfport, Miss	12	0	0	0	0	0	129	0	0	0	0	0
Harbor Island, Tex	0	0	0	0	0	0	216	0	0	0	0	0
Houston, Tex	1,972	0	1	28	2	31	0	0	0	0	0	0
Mobile, Ala	733	5	0	5	1	11	13,468	290	55	13	3	361
New Orleans, La	10,222	0	1	2	0	3	30,870	1	117	30	76	224
Pensacola, Fla	127	0	0	0	0	0	2,889	0	21	0	0	21
Sabine, Tex	208	0	0	0	0	0	7,015	0	41	3	6	50
Tampa, Fla	2,524	0	0	42	1	43	12,782	8	43	76	2	129
Total	17,575	10	2	90	4	106	85,164	383	277	122	87	869

TABLE 25.—*Aliens medically inspected and certified at continental and insular ports and at border stations during the fiscal year 1947*—Continued

Place	Number of alien passengers examined	Alien passengers certified					Number of alien crew examined	Alien crew certified				
		Class A		Class B	Class C	Total		Class A		Class B	Class C	Total
		1	2					1	2			
PACIFIC COAST												
Bellingham, Wash	0	0	0	0	0	0	45	45	0	0	0	45
Los Angeles (Terminal Island), Calif	12,642	3	1	31	0	35	19,554	2	62	9	3	76
Portland, Oreg	168	1	2	1	0	4	5,046	0	15	3	0	18
Port San Luis, Calif	0	0	0	0	0	0	54	0	0	0	0	0
Raymond, Wash	12	0	0	0	0	0	43	0	0	0	0	0
San Diego, Calif	247	0	2	1	0	3	2,358	0	0	0	0	0
San Francisco, Calif	18,034	39	0	44	48	131	6,314	9	0	0	0	9
Seattle, Wash	1,423	1	3	15	3	22	7,757	3	11	0	0	14
Tacoma, Wash	24	0	0	0	0	0	97	0	0	0	0	0
Total	32,550	44	8	92	51	195	41,268	59	88	12	3	162
MEXICAN BORDER												
Ajo, Ariz	225	1	0	0	0	1	---	---	---	---	---	---
Brownsville, Tex	5,759	9	8	67	34	118	10,110	0	30	11	0	41
Calexico, Calif	3,480	10	0	20	7	37	---	---	---	---	---	---
Columbus, N. Mex	1,285	0	0	0	0	0	---	---	---	---	---	---
Del Rio, Tex	99	0	1	10	0	11	---	---	---	---	---	---
Douglas, Ariz	746	4	7	12	20	43	---	---	---	---	---	---
Eagle Pass, Tex	504	7	2	51	10	70	---	---	---	---	---	---
El Paso, Tex.[1]	9,467	18	36	360	6	420	---	---	---	---	---	---
Hidalgo, Tex	13,999	6	81	187	596	870	---	---	---	---	---	---
Laredo, Tex.[2]	148,714	5	1	320	16	342	---	---	---	---	---	---
Naco, Ariz	673	0	0	4	20	24	---	---	---	---	---	---
Nogales, Ariz	9,202	8	63	191	119	381	---	---	---	---	---	---
Presidio, Tex	918	2	0	23	16	41	---	---	---	---	---	---
Rio Grande City, Tex	28	4	0	2	3	9	---	---	---	---	---	---
Roma, Tex	299	0	0	0	2	2	---	---	---	---	---	---
San Ysidro, Calif	7,877	9	15	176	0	200	---	---	---	---	---	---
Thayer (Mercedes), Tex	323	0	0	0	0	0	---	---	---	---	---	---
Tucson, Ariz	334	9	22	22	19	72	---	---	---	---	---	---
Zapata, Tex	256	0	0	0	0	0	---	---	---	---	---	---
Total	204,188	92	236	1,445	868	2,641	10,110	0	30	11	0	41

CANADIAN BORDER												
Blaine, Wash	546	46	0	94	406	546	0	0	0	0	0	0
Buffalo, N. Y	148	10	0	5	1	16	0	0	0	0	0	0
Calais, Maine	194	0	1	4	0	5	0	0	0	0	0	0
Chicago, Ill	855	1	0	33	8	42	347	0	0	0	1	1
Clayton, N. Y	16	2	0	0	0	2	4	0	0	0	0	0
Cleveland, Ohio	0	0	0	0	0	0	232	0	0	0	0	0
Detroit, Mich	3, 340	124	5	50	0	179	182	0	1	1	0	2
Eastport, Idaho	269	6	0	51	16	73	0	0	0	0	0	0
Erie, Pa	3	0	0	0	0	0	0	0	0	0	0	0
Halifax, Nova Scotia, Canada	8, 174	5	1	358	656	1, 020	0	0	0	0	0	0
Houlton, Maine	174	0	0	0	0	0	0	0	0	0	0	0
International Falls, Minn	202	0	0	5	1	6	0	0	0	0	0	0
Montreal, Canada	1, 251	37	0	353	17	407	0	0	0	0	0	0
Newport, Vt	398	3	0	28	96	127	0	0	0	0	0	0
Niagara Falls, N. Y	655	5	0	55	16	76	0	0	0	0	0	0
Noyes, Minn	23	0	0	0	0	0	0	0	0	0	0	0
Ogdensburg, N. Y	15	0	0	0	1	1	183	0	0	0	0	0
Oroville, Wash	195	0	0	0	0	0	0	0	0	0	0	0
Port Huron, Mich	441	24	2	18	0	44	130	3	0	6	0	9
Quebec, Canada	1, 433	5	0	149	260	414	0	0	0	0	0	0
Richford, Vt	172	0	0	0	0	0	0	0	0	0	0	0
Rouses Point, N. Y	185	4	0	7	0	11	0	0	0	0	0	0
St. Albans, Vt	76	3	0	5	5	13	0	0	0	0	0	0
Sault Ste. Marie, Mich	17	0	0	0	0	0	0	0	0	0	0	0
Sumas, Wash	22	1	1	5	0	7	0	0	0	0	0	0
Van Buren, Maine	40	3	0	1	0	4	0	0	0	0	0	0
Vanceboro, Maine	1, 059	0	0	0	0	0	0	0	0	0	0	0
Vancouver, Canada	876	16	1	181	21	219	0	0	0	0	0	0
Victoria, British Columbia, Canada	579	4	1	64	70	139	0	0	0	0	0	0
Winnipeg, Manitoba, Canada	6, 575	13	7	1, 002	175	1, 197	0	0	0	0	0	0
Total	27, 933	312	19	2, 468	1, 749	4, 548	1, 078	3	1	7	1	12
INSULAR												
Hawaii	8, 098	4	7	37	5	53	4, 907	1	15	2	13	31
Puerto Rico	722	0	0	0	0	0	9, 414	10	12	0	0	22
Virgin Islands	3, 524	0	0	0	0	0	11, 256	0	41	7	0	48
Total, all stations	571, 077	658	411	24, 850	2, 839	28, 758	479, 637	594	1, 403	197	208	2, 402

---

[1] Includes Guadalupe Gate and Ysleta, Tex.

[2] Includes Dolores and San Ignacio Tex.

Public Health Nursing

TABLE 26.—*Nursing personnel assigned to Bureau of State Services*

Division or office	On duty June 30, 1946	On duty June 30, 1947			
		Regular	Reserve	Civil Service	Total
Office of public health nursing:					
Central office	3	1	1		2
Assignments to States for general public health nursing	21	27			27
Assigned to school of nursing		1			1
District offices	10	4	5		9
States relations division:					
Nutrition studies	5	3	3		6
Field experience demonstration	1	1			1
Diabetes control section			1	2	3
Federal Public Housing Authority:					
Nurses	6				
Nurse's assistants	1				
Boulder City Hospital:					
Nurses	9			12	12
Nurse's assistants	4			1	1
Surplus property	4				
Chicago survey	1				
Heart disease section		1			1
Cancer control section		2			2
Venereal disease division:					
Central office	2	2			2
Rapid treatment center hospitals:					
Nurses	171	2	12	61	75
Nurse's assistants	20			6	6
Assigned to district			1		1
Assigned to States	4				
Industrial hygiene division:					
Central office	2	1	2		3
Assigned to States	3				
Assigned to university		1			1
Tuberculosis control division:					
Central office	3	2	3		5
Assigned to States	30	7	10	3	20
Research and studies	7	2	3	5	10
Office of Labor—Department of Agriculture	4	2	2		4
Grand total	311	59	43	90	192

TABLE 27.—*Total number of nurses employed for public health work*[1] *in the United States, in the Territories of Hawaii and Alaska, and in Puerto Rico and the Virgin Islands on Jan. 1 of the years 1943, 1944, 1945, 1946, 1947*

	1943	1944	1945	1946	1947
Grand total [1]	[2] 20,772	[2] 19,821	20,818	20,672	21,499
State agencies	886	811	869	946	993
Local official agencies:					
Rural	5,127	4,900	4,938	4,665	4,590
Urban	5,604	5,443	5,700	5,805	5,928
Local boards of education	3,786	3,722	4,321	4,276	4,637
Local nonofficial agencies	5,156	4,713	4,742	4,655	5,023
Schools of nursing [3]				[3] 84	[3] 102
National agencies [4] and universities	213	232	248	241	226
Number of counties having no nurses engaged in full-time public health work in rural areas	826	845	909	1,133	1,087
Number of incorporated cities and towns (population 10,000 or more) having no nurses engaged in full-time public health work	28	13	9	23	18

---

[1] Exclusive of industrial nurses.

[2] No report received from Virgin Islands in 1943. No report received from New Jersey in 1944. (1943 total for New Jersey was 1,142.)

[3] Data available for 1946 and 1947 only.

[4] A considerable number of nurses employed by the American Red Cross are engaged in activities that are not strictly public health nursing.

TABLE 28.—*Actual number of vacancies in nursing positions in public health agencies, Jan. 1, 1947, and estimated number of vacancies, July 1, 1947, by type of agency*

State	Total number of nurses employed Jan. 1, 1946	Total number of actual vacancies Jan. 1, 1947	Total number of expected vacancies July 1, 1947	Total number of actual and expected vacancies, 1947, by type of agency			
				Official health agencies	Boards of education	Voluntary agencies	Combination agencies
Total	20,347	2,489	1,194	2,877	129	539	138
Alabama	195	45	4	47	---	---	2
Alaska	37	10	9	19	---	---	---
Arizona	139	9	10	17	---	2	---
Arkansas	112	45	11	50	1	5	---
California	1,534	122	183	205	28	64	8
Colorado	172	28	8	28	2	6	---
Connecticut	570	68	32	27	6	67	---
Delaware	75	19	25	23	8	13	---
District of Columbia	173	34	4	25	---	13	---
Florida	288	31	5	32	1	3	---
Georgia	348	110	26	135	---	1	---
Hawaii	84	8	6	14	---	---	---
Idaho	62	15	3	15	3	---	---
Illinois	1,104	113	76	108	2	78	1
Indiana	384	32	14	20	4	22	---
Iowa	224	45	14	40	19	---	---
Kansas	177	43	5	32	2	10	4
Kentucky	299	65	23	73	---	---	15
Louisiana	242	136	1	135	---	2	---
Maine	135	41	9	38	2	8	2
Maryland	375	53	20	69	---	4	---
Massachusetts	1,236	37	2	5	3	31	---
Michigan	783	267	36	275	3	24	1
Minnesota	385	35	29	35	10	12	7
Mississippi	154	60	133	193	---	---	---
Missouri	391	58	24	47	4	30	1
Montana	53	20	21	17	---	---	24
Nebraska	111	19	6	7	---	1	17
Nevada	19	7	2	9	---	---	---
New Hampshire	150	7	2	2	1	3	3
New Jersey	1,056	35	23	20	---	27	11
New Mexico	77	19	9	19	---	9	---
New York	3,077	184	---	176	---	4	4
North Carolina	343	66	28	91	---	---	3
North Dakota	48	18	14	32	---	---	---
Ohio	1,023	83	18	93	3	4	1
Oklahoma	139	33	2	34	---	1	---
Oregon	130	47	19	65	---	1	---
Pennsylvania	1,573	63	18	5	14	57	5
Puerto Rico	325	16	82	98	---	---	---
Rhode Island	212	8	---	1	1	6	---
South Carolina	235	(1)	(1)	---	---	---	---
South Dakota	37	17	6	23	---	---	---
Tennessee	272	90	17	95	4	---	8
Texas	423	53	45	88	5	5	---
Utah	98	19	16	31	---	4	---
Vermont	78	9	5	7	2	5	---
Virginia	321	24	127	144	---	7	---
Washington	293	61	8	42	---	6	21
West Virginia	106	24	---	24	---	---	---
Wisconsin	431	22	12	29	1	4	---
Wyoming	23	16	2	18	---	---	---

---

[1] Data not available.

Assistance to States

TABLE 29.—*Payments to States for general health, venereal disease control, and tuberculosis control for fiscal year 1947, under provisions of sec. 314 of the Public Health Service Act (58 Stat. 682)*

State	General health	Venereal disease	Tuberculosis control
Total	$14,033,364.00	$8,747,867.71	$6,852,646.00
Alabama	397,506.00	332,503.00	150,152.00
Alaska	47,835.00	24,470.00	108,575.00
Arizona	75,330.00	52,754.00	37,347.00
Arkansas	252,638.00	207,287.00	92,125.00
California	649,060.00	387,407.00	267,301.00
Colorado	141,903.00	71,254.00	74,144.00
Connecticut	145,324.00	53,859.00	124,020.00
Delaware	31,932.00	23,284.00	49,011.00
District of Columbia	64,870.00	80,916.00	70,232.00
Florida	247,675.00	287,443.00	199,693.00
Hawaii	62,404.00	39,726.00	94,989.00
Georgia	410,405.00	377,329.00	261,169.00
Idaho	78,071.00	34,298.00	27,339.00
Illinois	693,354.00	575,929.00	219,678.00
Indiana	333,582.00	157,626.00	89,528.00
Iowa	209,049.00	75,626.00	60,149.00
Kansas	197,234.00	97,402.00	125,335.00
Kentucky	366,191.00	293,039.00	220,753.00
Louisiana	311,071.00	255,852.00	154,050.00
Maine	106,773.00	37,527.00	23,774.00
Maryland	186,414.00	149,006.00	163,139.00
Massachusetts	393,306.00	124,582.00	274,098.00
Michigan	463,052.00	240,657.00	304,808.00
Minnesota	266,120.00	87,823.00	109,403.00
Mississippi	336,247.00	316,009.00	212,181.00
Missouri	372,063.00	221,210.00	108,203.00
Montana	62,228.00	18,591.00	15,839.00
Nebraska	128,359.00	60,015.00	54,157.00
Nevada	46,613.00	20,504.00	4,719.00
New Hampshire	68,817.00	23,953.00	15,364.00
New Jersey	349,381.00	140,368.71	104,501.00
New Mexico	93,500.00	60,284.00	50,857.00
New York	1,038,967.00	468,943.00	434,780.00
North Carolina	432,145.00	354,726.00	261,995.00
North Dakota	85,563.00	30,344.00	90,228.00
Ohio	588,725.00	286,557.00	233,984.00
Oklahoma	245,072.00	150,012.00	175,563.00
Oregon	143,870.00	61,167.00	93,142.00
Pennsylvania	890,550.00	344,596.00	192,228.00
Puerto Rico	326,775.00	264,493.00	178,570.00
Rhode Island	71,839.00	30,192.00	45,951.00
South Carolina	271,562.00	250,899.00	209,696.00
South Dakota	89,023.00	34,442.00	39,766.00
Tennessee	355,241.00	272,617.00	200,438.00
Texas	722,756.00	624,003.00	126,387.00
Utah	84,773.00	35,757.00	22,832.00
Vermont	54,328.00	20,631.00	23,005.00
Virginia	294,731.00	234,197.00	273,464.00
Virgin Islands	11,648.00	11,976.00	24,075.00
Washington	199,614.00	87,458.00	98,414.00
West Virginia	209,144.00	145,829.00	112,298.00
Wisconsin	296,038.00	92,904.00	146,977.00
Wyoming	32,693.00	17,591.00	2,220.00

Tuberculosis Control

TABLE 30.—*Photofluorographic demonstration services rendered States by the Tuberculosis Control Division, United States Public Health Service, during fiscal years, 1945–47, showing numbers of X-ray unit days and X-ray technician days* [1]

States	Fiscal Year					
	1945		1946		1947	
	Unit days	Technician days	Unit days	Technician days	Unit days	Technician days
Total	3,706	2,980	6,348	7,677	11,676	9,732
Alabama	365	469	365	772	365	565
Arizona	39	54	365	602	337	643
Arkansas	---	---	---	---	---	---
California	150	98	178	27	727	0
Colorado	52	75	302	407	210	96
Connecticut	---	---	---	---	---	---
Delaware	---	---	---	---	---	---
District of Columbia	0	0	342	575	365	730
Florida	221	513	365	735	730	682
Georgia	5	47	[2] 708	[2] 828	0	356
Idaho	---	---	---	---	---	---
Illinois	0	4	0	0	181	2
Indiana	0	0	195	333	365	38
Iowa	---	---	---	---	---	---
Kansas	374	12	388	478	688	368
Kentucky	365	0	365	0	420	83
Louisiana	0	0	0	0	181	0
Maine	---	---	---	---	---	---
Maryland	0	45	0	0	0	0
Massachusetts	0	9	0	0	181	0
Michigan	311	2	365	176	546	150
Minnesota	0	0	0	0	[2] 882	[2] 970
Mississippi	---	---	---	---	---	---
Missouri	39	136	113	128	181	0
Montana	---	---	---	---	---	---
Nebraska	227	342	0	50	0	0
Nevada	0	0	0	0	181	152
New Hampshire	---	---	---	---	---	---
New Jersey	0	149	0	0	0	0
New Mexico	0	0	0	0	273	308
New York	0	109	354	740	727	278
North Carolina	4	16	404	365	[2] 916	[2] 1,631
North Dakota	---	---	---	---	---	---
Ohio	787	347	561	432	323	4
Oklahoma	0	0	231	235	355	393
Oregon	109	0	0	0	0	0
Pennsylvania	37	46	0	15	454	328
Rhode Island	---	---	---	---	---	---
South Carolina	166	272	382	779	730	668
South Dakota	4	4	0	0	0	0
Tennessee	18	90	0	0	0	0
Texas	0	5	0	0	0	20
Utah	36	48	0	0	0	0
Vermont	---	---	---	---	---	---
Virginia	375	40	365	0	318	3
Washington	22	48	0	0	0	0
West Virginia	---	---	---	---	---	---
Wisconsin	0	0	0	0	[2] 1,040	[2] 1,264
Wyoming	---	---	---	---	---	---

---

[1] In addition many of the units were supplied with films, developer, and record forms.

[2] Community-wide chest X-ray surveys were conducted during this period.

HISTORICAL NOTE

Saint Elizabeths Hospital was founded by act of Congress in 1855 under the name of the Government Hospital for the Insane. Its purpose, in the words of Dorothea Lynde Dix who wrote the bill, was to provide "the most humane care and enlightened curative treatment of the insane of the Army and Navy of the United States and of the District of Columbia."

In 1916 the name was changed by act of Congress to St. Elizabeths Hospital, thus confirming a custom which had grown up through the years of applying to the hospital the name of the tract of land upon which it was erected, the tract having been indicated as St. Elizabeths from the days of the early Maryland settlers.

The institution was administered under the supervision of the Department of the Interior until 1940, when by the Fourth Reorganization Act it was transferred to the Federal Security Agency. It is now a Bureau of that agency.

By the Third Reorganization Plan of 1946, approved by the Senate July 13, 1946, provisions for the admission of patients from the Army and the Navy were abrogated.

ST. ELIZABETHS HOSPITAL

FOREWORD

The annual report of St. Elizabeths Hospital for the fiscal year ended June 30, 1947, is herewith presented. The transition from a war-time to a peace-time basis has continued, with considerable progress. The supply of foodstuffs, textiles, clothing, and other needed materials has increased substantially, although the costs have shown a disturbing increase. Personnel of all classes has become more plentiful, so that further attention to the treatment and other needs of the patients has been possible. The administrative staff has been expanded to meet the increasingly complex demands of the various agencies of government. The general health of the patients has been excellent.

With the increasing possibilities of international travel, something of the previous flow of visitors to the hospital has been resumed. During the year official and personal visitors, medical and nonmedical, visited the institution from the 21 following countries: Argentina, Belgium, Brazil, Canada, Chile, Cuba, Czechoslovakia, Denmark, Ecuador, England, France, Guatemala, Holland, Hungary, Mexico, Poland, Scotland, Spain, Sweden, Turkey, and Uruguay. The attention of these callers from afar is both a stimulating experience to the administration of the hospital and a reminder of the world-wide reputation enjoyed by St. Elizabeths Hospital.

An active teaching program has been carried on for the benefit of various groups—medical students, interns and residents (including several postgraduate students from Brazil, Cuba, Guatemala, and Mexico), nurses (undergraduate, affiliate, and postgraduate), clinical psychologists, theological students, social workers, dietitians, attendants, and Red Cross volunteer workers. An intensive 2-week postgraduate course for physicians was given at the hospital in cooperation with the George Washington University School of Medicine, and a 2-day scientific program of high quality was conducted by the Medical Society of St. Elizabeths Hospital.

Various research activities have been conducted, two of them under the auspices of the Supreme Council, Scottish Rite Masons of the Northern Masonic Jurisdiction. Among other activities, some new studies in group psychotherapy have been carried out in conjunction with the Veterans' Administration.

Under the terms of Reorganization Plan No. 3 of 1946 admissions from the Army and the Navy were discontinued. The relations with the Navy, in force since 1855, have always been most enjoyable, and the Navy patients have offered an interesting and stimulating variety to the groups under treatment. The loss of this contact with the armed forces is a source of keen disappointment to the hospital personnel. It should be explained that the Army had used the hospital very little for several years, having established numerous hospitals of its own for the care of mentally ill personnel since about 1941.

If the loss of patients from the armed forces results, as seems likely, in reduction of the Red Cross activities, a compensatory increase in hospital personnel will become necessary.

No report would be complete without a word of tribute to the Board of Visitors, which ceased to exist with the approval by the Senate on July 15, 1946, of Reorganization Plan No. 2 of 1946. This unpaid board of public-spirited residents of the District of Columbia, provided for originally in 1855, had served devotedly as a link with the citizenry, in order that the "Government and the community may have confidence in the correctness of the management" of the hospital. As one who has had long and pleasant experience with unpaid lay boards, the Superintendent is glad to testify to the helpful and valuable services rendered to the hospital and community by the Board of Visitors.

WINFRED OVERHOLSER, M. D.,
Superintendent.

MOVEMENT OF POPULATION

The most significant development affecting hospital population developed from the operation of Reorganization Plan No. 3, which became effective July 14, 1946. Under the provisions of this plan no admissions from the armed services have been made since that date. At the same time, many patients admitted from the armed services previous to that date have been transferred to the rolls of the Veterans' Administration where eligible and in a large number of instances have been transferred to hospitals of that Administration. The total hospital census from year end to year end, however, has remained approximately the same, due chiefly to an increase in admissions from the District of Columbia in offset to the reduction in admissions from the armed services.

On June 30, 1947, 6,529 patients remained on the hospital rolls compared with 6,505 on the same date in 1946. New admissions during the year totaled 1,339, including 259 readmissions. Of the readmissions, 144 were former patients of this hospital and 115 of other hospitals.

A total of 891 patients was discharged or transferred and 424 deaths occurred, the combined total of patients dropped from the rolls being 1,315. Burial in the hospital cemetery was provided for 49 deceased patients.

The daily average number of patients on the rolls during the year was 6,484, on visit and elopement 346, and in the hospital 6,138. The average number of days hospitalization furnished in the case of discharged or deceased patients was 1,204 days. This average compares with 1,030 for the previous fiscal year and reflects largely the increased average age of the patient group owing in large part to the greatly reduced number of younger patients from the armed services now on the rolls. Detailed census tabulations follow:

Movement of patient population for the fiscal year 1947

	Male			Female			Total
	White	Colored	Total	White	Colored	Total	
Remaining on rolls June 30, 1946	2, 543	1, 110	3, 653	1, 779	1, 073	2, 852	6, 505
Admitted during year ending June 30, 1947	365	257	622	472	245	717	1, 339
Total number under care and treatment during year ending June 30, 1947	2, 908	1, 367	4, 275	2, 251	1, 318	3, 569	7, 844
Discharged as—							
Not insane	27	2	29	0	1	1	30
Recovered	41	7	48	40	31	71	119
Social recovery	76	35	111	73	25	98	209
Improved	109	45	154	108	43	151	305
Unimproved	113	31	144	60	24	84	228
Total discharged	366	120	486	281	124	405	891
Died	157	75	232	130	62	192	424
Total of patients discharged and dead	523	195	718	411	186	597	1, 315
Number of patients remaining on rolls June 30, 1947	2, 385	1, 172	3, 557	1, 840	1, 132	2, 972	6, 529
Patients on visit and elopement June 30, 1947	68	35	103	144	63	207	310
Number of patients in hospital June 30, 1947	2, 317	1, 137	3, 454	1, 696	1, 069	2, 765	6, 219

Consolidated statement of movement of patients for the fiscal year 1947 by classification

	Reimbursable patients					Nonreimbursable patients																	Total	Grand total
	Bureau Indian Affairs	District of Columbia	U. S. Soldiers Home	Veterans' Administration	Subtotal	Army	Bureau Employees Compensation	Bureau Immigration	Bureau National Homes	Transferred from Canada	Canal Zone	Coast Guard	Foreign Service	Marine Corps	Navy	District of Columbia prisoners	Military prisoners	United States prisoners	Public Health Service	U. S. Soldiers Home	Virgin Islands	Miscellaneous		
On rolls June 30, 1946	54	4, 886	21	70	5, 031	366	2	2	11	50	11	26	2	96	430	205	65	63	65	10	61	9	1, 474	6, 505
Admitted to June 30, 1947	5	1, 239	6	0	1, 250	0	0	0	0	1	3	0	1	0	2	56	1	3	7	1	13	1	89	1, 339
Separations fiscal year 1947:																								
Deaths	2	374	4	3	383	13	0	0	0	2	0	2	0	0	9	4	1	3	3	3	1	0	41	424
Discharges	4	683	4	7	698	10	0	0	0	3	0	3	2	16	103	22	13	5	11	2	1	2	193	891
Total separations	6	1, 057	8	10	1, 081	23	0	0	0	5	0	5	2	16	112	26	14	8	14	5	2	2	234	1, 315
On rolls June 30, 1947	53	5, 068	19	60	5, 200	343	2	2	11	46	14	21	1	80	320	235	52	58	58	6	72	8	1, 329	6, 529
Changes in classification fiscal year 1947	0	−5	0	add 199	add 194	0	0	0	0	0	0	−2	0	−50	−143	add 1	−1	0	add 1	0	0	0	−194	0
Adjusted on rolls June 30, 1947	53	5, 063	19	259	5, 394	343	2	2	11	46	14	19	1	30	177	236	51	58	59	6	72	8	1, 135	6, 529
On visit and elopement June 30, 1947	0	286	0	3	289	3	1	0	0	0	1	0	0	0	5	7	0	1	3	0	0	0	21	310
Remaining in hospital June 30, 1947	53	4, 777	19	256	5, 105	340	1	2	11	46	13	19	1	30	172	229	51	57	56	6	72	8	1, 114	6, 219

Number of patients in U. S. Public Health Service hospitals

Number of patients at Lexington, Ky., June 30, 1946	263
Admitted during the fiscal year 1947	1
Total	264
Separated by death or discharge during the fiscal year	148
Number of patients in Lexington hospital June 30, 1947	116
Number of patients at Fort Worth, Tex., June 30, 1946	702
Admitted fiscal year 1947	56
Total	758
Dead and discharged fiscal year 1947	698
Number of patients in Fort Worth hospital June 30, 1947	60

Average number of patients on rolls of St. Elizabeths, 1935–47

1935	5,267	1942	6,994
1936	5,373	1943	7,031
1937	5,538	1944	7,161
1938	5,836	1945	7,308
1939	6,108	1946	7,044
1940	6,395	1947	6,484
1941	6,663		

Admissions and discharges, 1935–47

Fiscal year	Total admissions	Total discharged	Per cent discharged in relation to admissions	Total deaths
1935	824	396	48.06	304
1936	925	552	59.68	298
1937	1,099	490	44.59	332
1938	1,029	461	44.80	267
1939	1,056	469	44.41	281
1940	1,202	619	51.50	322
1941	1,503	773	51.43	382
1942	1,797	1,534	[1] 84.36	371
1943	2,324	1,491	64.15	420
1944	2,599	2,056	79.11	441
1945	2,935	2,299	78.30	460
1946	1,909	2,477	129.75	396
1947	1,339	891	66.54	424

---

[1] 63.10 without transfer of 400.

Medical Department

The psychiatric and general medical care and treatment of patients were carried out in the following departments of the hospital:

Clinical Division No. 1.
Clinical Division No. 2.
Clinical Division No. 3.
Division of Medicine and Surgery.
Division of Laboratories.
Division of Psychotherapy.
Division of Nursing.
Occupational Therapy.
Social Service.

Psychiatric Services

Each Clinical Division is in charge of a Clinical Director and consists of three or more services (psychiatric units), under the direction of a physician in charge with one or more assistants, depending on the size of the service and the character of patients treated.

Clinical Division No. 1 (women patients), consists of the Women's Receiving, Richardson, Q and C services (units). It comprises two acute admission services and two continued treatment services. As of June 30, 1947, 2,048 patients were in residence.

Clinical Division No. 2 (men and women patients), is made up of the Men's Receiving, William A. White (women patients), and East Side (men patients), services. As of June 30, 1947, there were 1,572 patients in residence.

Clinical Division No. 3 (men patients), consists of West Lodge, West Side and Detached services, comprising both acute receiving and continued treatment services. There were 2,246 patients in residence on June 30, 1947.

The decrease in the number of admissions of male patients, which was due primarily to the end of hostilities, continued during the past year but became most noticeable following the Senate approval of Reorganization Plan No. 3 of 1946, making patients from the armed forces ineligible for admission to St. Elizabeths Hospital. The transfer of patients who were beneficiaries of the Veterans' Administration continued during the past year. These two factors have to a great extent changed the character of the hospital population and we now have a much higher percentage of older patients than formerly, which in turn has shifted therapeutic emphasis to geriatric problems. The decrease in admission rate and the transfer of patients to Veterans' Administration hospitals has enabled us to reduce to some extent the overcrowding which occurred during the war years.

Efforts have been made to improve the organization of the psychiatric units and the classification of patients distributed throughout the various psychiatric wards. It is gratifying to note that during the past year the hospital was able to fill many of the existing vacancies in the medical staff. We also experienced improvement in the quantity and quality of ward personnel appointed during the last year, and the training courses given to trainee employees in various grades further increased the efficiency of the ward personnel.

The hospital continues to experience a marked shortage of registered nurses, although some improvement has been achieved in that direction. A detailed study of the correct assignment of personnel ceilings for the various divisions of the medical department was carried out at all levels of employment. Standards for the use of personnel were outlined and for purposes of presenting this problem before the Bureau of the Budget, all wards were divided into categories by the degree of the nursing care required. The number and type of patients cared for on each ward were given specifically.

To promote efficiency and cooperation between the various divisions of the medical department, weekly administrative staff conferences were inaugurated, at which time departmental problems, policies and procedures were discussed.

During the past year two buildings (with a bed capacity of 204 and 196 beds respectively), which were formerly occupied by men patients, were turned over for use of women patients to relieve the progressive overcrowding in the women's division of the hospital during the war years. This enabled us to achieve a marked improvement in the classification and distribution of women patients, particularly on the wards housing disturbed and assaultive groups.

The psychiatric department has continued to provide every form of therapy, new and old, which has demonstrated maximum value with minimum risk. Electric shock therapy has been used extensively, primarily in cases of depression, but also in a number of cases of schizophrenia with affective features. Intravenous sodium amytal (narcosynthesis) was used in various types of patients inaccessible to psychotherapy or other forms of therapy. We have continued to use sub-shock insulin therapy in cases of agitated depression or extreme anxiety where, for various reasons, shock therapy was contraindicated. Prefrontal lobotomies were performed in specially selected cases. With the additional number of medical personnel a larger group of patients has received individual psychotherapy. Group psychotherapy was inaugurated during the past year. This form of therapy is still in the experimental stage but should prove of value as an additional therapeutic procedure in mental hospitals. The psychodramatic form of group therapy has also been continued. As in former years all members of the staff have been encouraged to devote as much time as possible to individual psychotherapeutic interviews with patients.

The deficiencies of the Stenographic Department, which have been existing for some time and which were discussed in the last annual report, have continued to an alarming degree. The psychiatric records are in a serious condition, a great deal of valuable information concerning patients which is required in making decisions regarding ground privileges, visits, or discharge, is contained on the cylinders stored in the stenographic room and frequently not recorded until long after patients have been discharged or died. It is a source of embarrassment when a record is consulted for certain specific information to find that this information is still on some cylinder which can only be located after prolonged search. Although every effort has been made to recruit additional personnel, the hospital is unable to attract competent applicants and, as in former years, we have lost competent workers who were able to obtain positions in higher grades in other government departments. The difficulty appears to lie in the fact that the basic positions of this department are underclassified, and a revision upward in the classification of the various grades must be made if we are ever to attract qualified personnel adequate to our needs. Several psychiatric services are still without secretaries in spite of the efforts of the Personnel Department to obtain qualified help.

Division of psychotherapy.—As mentioned elsewhere, a larger number of patients were able to receive special psychotherapeutic attention during the past fiscal year. A great variety of intelligence tests, basic achievement tests, vocational tests (interest and aptitude), projection and personality tests (Rorschach, etc.), were given to the following groups:

Patients	542
Attendants	106 (including group tests)
Student nurses and others	80

Vocational advice was given to 28 subjects, who required 81 tests. The psychology department furnished training by means of lectures, clinics, and demonstrations to the student nurses of the Training School, hospital interns and residents, and also to students of George Washington and Maryland Universities. The establishment of two internships in psychology has been approved, and it is expected that the chosen candidates will be able to commence training in the fall of 1947.

Psychodrama.—Thirty-seven psychodramatic sessions were held throughout the year, 74 patients receiving this form of therapy. Psychiatrists and social workers from various States and foreign countries were afforded an opportunity to avail themselves of this new method of psychodramatic technic. Psychodramatic training sessions were held for workers of the American Red Cross, students of our own training school, student chaplains, and students from neighboring universities.

Music and art.—As in former years, music and art sessions were conducted for selected patients under the supervision of this department.

Division of occupational therapy.—This form of therapy was carried on in 14 wards and 8 shops at the hospital. Occupational assignments were made by physicians, every effort being made to afford this form of therapy to as large a percentage of patients as possible. An average of 380 women patients and 181 men patients per month participated in occupational activities. With the retrenchment program of the American Red Cross supervision of some recreational activities was transferred to the occupational therapy department. In addition to moving pictures being shown in the central recreation hall, moving pictures were shown to patients on the wards, an average of 1,135 patients each week being in attendance. The occupational therapy department furnished training in occupational recreational therapy to student nurses of this hospital and affiliating undergraduates from other hospitals. Three hundred ninety-nine student nurses received an 8-hour course in Theory of Occupational Therapy and 2 weeks of clinical experience. The following work was performed by patients under the supervision of this department:

Total number of articles made by patients, 11,662. Of these 1,571 articles were made for distribution as Christmas gifts to women patients; 3,078 tarlatan bags were made (these were filled with candy, fruit, nuts, etc.), for distribution to patients during the holidays. One thousand calendars were printed in the print shop; 5,244 pieces of clothing were mended; 467 dresses and slips were made for the sewing room. A new activity in this department was the rolling of plaster bandages for the minor surgery clinic; 3,972 yards of bandage have been cut, rolled in plaster and rewound by patients in this shop. The remainder of the articles were used by the hospital, many being ordered for definite purposes, such as, file boxes, desk sets, bulletin boards, table runners, ceramic ash trays, rugs, vases, Christmas tree ornaments, etc. The print shop of this department made a total of 211,936 copies of printed forms for use in the hospital.

Plans have been completed for a contemplated 6 months' clinical experience course for students from approved schools of occupational therapy throughout the United States. This course is to include didactic lectures and clinics under the direction of the medical staff as well as adequate clinical experience in the occupational department under the supervision of registered occupational therapists. Although during the past fiscal year we were able to make three appointments to this department, the number of workers in comparison with the total patient population is still quite inadequate, partly on account of the present underclassification of the positions. Efforts are being made by the Personnel Department to recruit the necessary workers allotted to this division.

Industrial therapy.—Convalescent patients and those enjoying ground privileges, as well as those who have been discharged from the occupational therapy department by reason of improvement in their condition, were given special assignments in the various industries of the institution.

Hydrotherapy.—This valuable form of treatment practiced in all modern psychiatric institutions, has been extensively used throughout the hospital, seven hydrotherapeutic facilities each in charge of a hydrotherapist and one or more assistants, have been in operation during the fiscal year.

Social service.—In our last annual report the shortage of personnel in this department was discussed and mention was made of the fact that the hospital was unable to recruit social workers because the grades allotted by the Civil Service Commission for social workers at this hospital were not high enough to attract desirable applicants. It is gratifying to report that as a result of upgrading positions the hospital was able to attract six workers who were appointed to this department during the past fiscal year. A worker has been assigned to each admission service, while the less active services have been assigned a part-time worker. We still have a number of vacancies in this department which we hope to fill in the near future, so that all our patients may receive adequate social service supervision. In addition to the training of the junior workers in this department and student nurses of our training school, training has been provided to the students of the school of social work of the Catholic University of America and Howard University in Washington, D. C.

The following work was performed in this department:

Students receiving supervision	484
Histories taken	132
Special services for in-patients	349
Investigations in connection with proposed visits	261

This department has also cooperated with the District of Columbia Office of Rehabilitation in connection with the rehabilitation of a number of our convalescent and discharged patients.

School of nursing.—During the fiscal year the training school gave instruction to 34 students of our own training school (3-year course), 66 affiliate students, 2 senior cadets; 468 ward attendants received special courses in practical procedures and management of patients, leading to advancement to higher grades. Refresher courses were given to experienced attendants, leading to promotion to attendant in charge.

Twenty-six student nurses were graduated during the last fiscal year after completion of their 3 years training. All 26 took the examinations of the Nurses Examining Board of the District of Columbia. Ten students made honors (a grade of 90 per cent or over).

The hospital has continued its affiliation with Gallinger Municipal Hospital, Sibley Memorial Hospital, Children's Hospital, Emergency Hospital, Freedmen's Hospital, Garfield Hospital, Providence Hospital, of Washington, D. C. It has also continued its affiliation with the following out-of-town hospitals: Alexandria Hospital, Alexandria, Va.; Camden-Clark Memorial Hospital, Parkersburg, W. Va.; Chesapeake and Ohio Hospital, Clifton Forge, Va.; Florida Sanitarium and Hospital, Orlando, Fla.; St. Francis Xavier Infirmary, Charleston, S. C.; St. Joseph's Hospital, Lancaster, Pa.; St. Joseph's Hospital, Reading, Pa.

As in former years, the postgraduate course in affiliation with the Catholic University of America was continued, 11 students from that university completing the course of instruction.

Libraries.—The two libraries of the hospital—the medical library for the medical and nursing staff, and the circulating library for patients—have continued to function very efficiently. The position of medical librarian which was vacant over 1 year, was filled on March 3, 1947. Prior to the appointment of the medical librarian both libraries were very satisfactorily supervised by the librarian of the circulating library. During the past fiscal year a separate nurses' library was established in Barton Hall (Nurses' Home). This became necessary in order to make books more accessible to the nurses who cannot attend the library during the regular hours.

The medical library received a total of 430 new books from the following sources:

New books purchased by St. Elizabeths Hospital	173
Bound at the Government Printing Office	52
Gifts (including 20 volumes from Dr. Winfred Overholser, Superintendent, and 155 from the Army Medical Library)	205

At the end of the fiscal year there were 12,819 volumes in this library. There were 12,000 pamphlets on hand, including reprints, annual reports, bulletins, etc. One hundred thirty periodicals were received during the year, 90 being purchased by the hospital, while 40 were received through gifts. The total circulation of this library was 2,564. The above figures do not include the large number of volumes consulted in the reading room of the library. Our medical library loaned to other libraries 45 volumes and borrowed from other libraries for the use of the staff 357 volumes. The Library of Congress and the medical libraries of the city, namely, the Army Medical Library and the libraries of the Walter Reed Hospital, the United States Navy

Medical Center, and the National Institute of Health, have been most generous and helpful.

Patients' circulating library.—In addition to the regular librarian, this library was staffed by about 15 working patients, both men and women, who were assigned there as a therapeutic measure by their physician in charge. The patients assisted with the filing of cards, cataloging, lettering, and shelving of books. A few were taught bookbinding and now are very useful in the bindery. The patients' bookbindery repaired and bound 482 books and made 165 scrap and memorandum pads from used paper and envelopes, for general hospital use. As patients improve and are discharged from the hospital they are replaced by others from various parts of the institution. Eight thousand eight hundred sixty-three volumes were added to this library during the year. The hospital purchased 341 new books, while 7,822 used books were purchased through the War Assets Administration and 700 were donated. Miss Ruth Rodier, librarian of the United States Naval Hospital, Miss Mary E. Switzer, Assistant to the Federal Security Administrator, Dr. Winfred Overholser, Superintendent, Dr. Samuel A. Silk, Assistant Superintendent, and various other members of the medical staff were among the generous donors. At present there are 30,544 books in the library. During the fiscal year this library received regularly 5 daily and Sunday newspapers and 50 popular magazines. The hospital paid for eight subscriptions, while the others were donated by persons interested in the institution. About 2,500 magazines were received from the Post Office Department as unclaimed mail and about 5,000 magazines were received from various other sources. Newspapers and magazines not suitable for binding were distributed throughout the various wards of the institution. Approximately 4,000 books circulated each month, 65 percent of which were fiction. Patients visited the reading room daily, where newspapers, periodicals, atlases, reference books, etc., were available. Books were regularly supplied to patients who were unable to visit the library. At frequent intervals the Gray Ladies drew many books from this department for various patients and delivered them to the wards. Twelve book reviews were conducted at this library, most of them being given by patients. These book reviews were well attended, the patients showing great interest in this activity.

Religious activities.—As in former years, Catholic services were carried on at the hospital under the Rev. Stephen J. Hogan, who functioned in a full-time capacity, conducting services, hearing confessions, administering the sacraments, and making formal visits to patients. With the assistance of 3 clerical students from the Catholic University spiritual ministration was given to 1,300 Catholic patients during the past year. Fifty-eight services were held in different wards for those patients who on account of age, general feeble condition, or other reasons could not attend the regular services in Hitchcock Hall (assembly hall). The Catholic chaplain was available for calls 24 hours of the day. Seven hundred fifty-two interviews were had with patients; about one-fifth of these were at the request of doctors or relatives. Seven hundred thirty sick calls were made during this year, including 47 at night.

A full time Protestant chaplain, the Rev. Ernest Bruder, who ministered to the spiritual needs of patients of Protestant denominations, was available during the past fiscal year. Two regular services were held each Sunday. A total of 142 services was held during the year, with an attendance of 13,211. One hundred thirty-nine sermons or addresses were given. Special services were conducted for festival seasons. Sixty-nine communion services were held with an attendance of 4,247. All newly admitted patients were interviewed and a number of patients were seen intensively, a total of 1,096 interviews being held during the year. Three thousand one hundred sixty-one visits were made to patients, 207 of these being serious calls. Nine theological students and clergymen were given a course in clinical pastoral training. The students made a significant contribution to the work of this department, assisting with visits to various patients of the hospital as well as assisting in the regular worship services as part of their training experience. The value of training theological students in psychiatric fundamentals as a means of improving their understanding of human behavior is quite evident, and the hospital welcomes the opportunity to assist in this aspect of training.

Jewish services.—Under the auspices of the Jewish Welfare Board and the Rabbinical Council, regular services were held during the fiscal year every Saturday morning and special services were held on high holidays, Rabbi Hirsch T. Glickman in charge of the services. Dr. Karl Darmstadter has continued to devote 1 day each week for visiting Jewish patients throughout the various hospital wards.

As in former years, both the Catholic and Protestant chaplains call attention to the inadequacies and unsuitability of the present quarters (the basement of Hitchcock Hall), which is used for the various religious services. They strongly recommend that a chapel be built which would in a way approximate the normal facilities available to men and women outside the hospital. They call attention to the fact that a hall which is used during the week for various and sundry kinds of meetings does not fulfill such conditions. The erection of a suitable chapel dedicated exclusively to religious worship would benefit both patients and employes of the hospital.

Red Cross.—The extensive program of recreation and social activities which the Red Cross unit has carried on for many years at this hospital was greatly curtailed during the past year following the Senate approval of Reorganization Plan No. 3, making patients from the armed forces ineligible for admission to St. Elizabeths Hospital. While the Red Cross unit of Saint Elizabeths Hospital was established primarily for the benefit of patients from the armed forces, the civilian patients at the hospital have benefited greatly from the extensive recreational and social activities of this unit. The occupational therapy department of this hospital has taken over some of the activities formerly carried on by the Red Cross unit and it is hoped that the hospital will be able to secure additional appropriations to carry on recreational activities for the benefit of our patients. The much reduced staff of the Red Cross unit has continued to give assistance to the service cases still remaining in the hospital: Before leaving the hospital each patient has been given a letter of introduction to his home chapter and great efforts have been made to encourage him to seek help from the Red Cross in his home community should he feel the need of it. By this means patients could be assisted in receiving psychiatric help should they need it and the home community would be assisted in understanding the need of the discharged veteran. A postdischarge letter containing information about the patient was sent to the home chapter as each patient left the hospital. Case work material on patients transferred to veterans hospitals was forwarded to the social service department of the hospital to which patient was sent.

The following Red Cross volunteer units have been active during the past year:

Motor Corps.
Canteen Service.
Hospital Recreation Corps (Gray Ladies).
Camp and Hospital Council.

Two classes of Gray Ladies have been trained at the hospital. These 30 women have been on duty during Saturdays and Sundays as receptionists in the 2 admission buildings. These volunteers deserve special commendation since they are made up of Government employees who are employed during the week and give one of their free days as volunteers to the hospital. A regular volunteer group of women members of the American Legion provide and assist at large parties in the Red Cross house. Without the assistance of these volunteers the Red Cross unit would have been unable to carry out as large a recreation program for the benefit of our patients.

The Red Cross unit of St. Elizabeths Hospital has been the center of training of groups in psychiatric social work and recreation. Four classes made up of field directors and deputy field directors from the five Red Cross areas have received training at this hospital in psychiatric case work, recreation, administration, and supervision. At the request of the Army and Navy, members from the disciplinary barracks of these branches of the service attended these classes. The women members of the class consisted of psychiatric social and recreation workers, chief recreation workers, psychiatric social work supervisors, and psychiatrically trained consultants. The purpose of the National Red Cross in bringing these supervisory individuals to this hospital for training was to enable them to observe methods which are used at St. Elizabeths Hospital in order to deploy some of these teaching methods to other posts and hospitals. Students from William and Mary College and from the Catholic University of America received their training in social service work in this unit.

During the past year the Red Cross unit, although on a much smaller scale, has continued its outdoor program: A number of patients were given an opportunity to attend big league baseball games and ice-skating carnivals, these arrangements being made for the Red Cross unit by the recreational committee of the camp and hospital council. It provided recreational activities, arranging for band concerts, moving pictures, and dances at the hospital. During the past year the Red Cross unit developed and enlarged its hobby shop and established a weekly newspaper, The Elizabethan, edited by and for the patients of the hospital, which has been enthusiastically read and greatly praised by patients and employees.

Division of Medicine and Surgery

This department cares for patients from the various psychiatric wards who are in need of treatment for acute medical and surgical conditions, and also maintains a special unit for pulmonary tuberculosis. A number of improvements in personnel and physical facilities as well as functional technics, were made during the year and these have resulted in even higher efficiency in the operation of this department. We have been able to relieve some of the overcrowded conditions which have existed for a number of years in R-Building (a building for patients convalescing from acute surgical and medical conditions, those requiring semimedical care as well as neurological cases). This building is designated as the Neurological Convalescent Section of the Medical and Surgical Division, and functions under a physician in charge with the assistance of a medical intern and a psychiatric resident.

The full-time staff of this division is now complete, consisting of the Director of the Division of Medicine and Surgery, a full-time internist, a full-time surgeon, a full-time physician in charge of the syphilologic section, and a full-time physician in charge of the neurologic and convalescent section mentioned above. Of great help to the surgical department has been the appointment of a full-time registered anesthetist. The status of medical interns has been changed during the year by Executive order: They are no longer classified as employees but are on a training basis. In common with all hospitals throughout the United States, the shortage of trained nurses which was felt at this hospital for the past five or more years, has continued during the past year. This shortage has been more keenly felt by this division, which has been unable to give to the patients the full benefit of the improved organization, the improved quality of medical and surgical diagnosis and therapy, and the use of improved equipment because of lack of nurses to carry out orders and to use the equipment properly. The shortage of qualified trained nurses made it necessary to curtail the activities of the operating room and certain clinic services. The backlog of elective but necessary surgery continues to accumulate. A large percentage of the present operating room service has been for emergency work. Every effort is being made by the hospital to recruit additional nurses and it is earnestly hoped that this effort will meet with greater success during the coming year.

The number of patients admitted to the wards and clinics of this division has increased materially during the past year in spite of the fact that the census of the institution has materially decreased. The number of admissions was 2,776 and the number of clinic visits 48,430. The quality of the professional work of this service has materially improved and the variety of activities considerably increased during the past year. New clinics have been established and the work of all clinics expanded. It has been necessary to open a small obstetrical ward which at various times during the past year has housed eight or nine infants. The use of new drugs and preparations has been inaugurated as their worth has been proven for selected appropriate cases. Beginning early in the year and in conformity with the best recommended practice, extensive surveys have been made of all known contacts in newly discovered cases of pulmonary tuberculosis.

In April 1947, because of the outbreak of smallpox on the Eastern seaboard, and following the recommendation of the District of Columbia Health Department, the entire hospital population, both patients and employees, were vaccinated.

This division of the hospital has continued to supply malarial blood to other hospitals for their use in the treatment of neurosyphilis, many such hospitals having been supplied during the past year. In liaison with some of the outstanding specialists in the city, clinics have been held throughout the year in cardiography, gastroscopy, the diagnosis and treatment of intrathoracic diseases other than those of the heart, and in orthopedic surgery.

As an aid in conserving beds for acute cases in the division of internal medicine, a medical clinic was held once a week at which patients having nonacute medical conditions were seen by the chief internist.

The surgical section of this service has been very active, and by training interns in general awareness of the situation it has been possible to reach acute abdominal cases much earlier than previously with expected improved results. Six hundred seventeen surgical operations were performed in addition to a large amount of minor surgery which was taken care of in the Minor Surgery Clinic. Various attending specialists of such departments as thoracic surgery, ear, nose and throat, ophthalmology, and neurosurgery, have performed a number of operations in their respective specialties.

Antiluetic clinic.—Research activities in the effectiveness of penicillin in neurosyphilis have been continued during the past year. Penicillin or combined penicillin-malaria therapy have been given to patients attending this clinic. There is as yet no final opinion as to the relative merits in the treatment of penicillin in neurosyphilis. It is generally agreed that this antibiotic is effective in the asymptomatic and acute meningeal forms of neurosyphilis, but its value in the parenchymatous form is still undetermined.

X-ray department.—The amount of X-ray work has increased by nearly 100 per cent during the last year. This has been due principally to the efforts expended to halt the spread of tuberculosis. A radiographic survey of the entire patient population at least once a year has been inaugurated. A number of pieces of new apparatus have been purchased for this department, and two additional rooms have been assigned for its use.

Tuberculosis department.—As in previous years, every effort has been made by the hospital to reduce tuberculosis in the institution and to detect such cases as early as possible. Every effort has been made to give each patient the benefit of modern treatment compatible with his mental condition. Pneumothorax therapy and thoracoplasty have been carried out wherever indicated.

Division of laboratories.—Work of the division of laboratories proceeded in full stride during the year and the following is a summation of the work performed:

A. Bacteriology:	
Cultural studies of autopsies and exudates	1,945
Plasma bank	30
Examination of smears	1,050
Animals inoculated	32
Animals posted	27
Reports on sanitary conditions and special tests	8
B. Serology:	
Blood typing and crossmatching	429
Blood Kolmer and Kahn	6,533
Spinal fluid Kolmer, total protein, gold cells, etc	7,315
C. Urine Analysis: Routine examinations and special tests	24,786

D. Hematology:	
Examinations and tests	9,237
Gastric washings and sputum examinations	997
E. Biochemistry:	
Blood analyses and tests—sugar, NPN, cholesterol, total protein, etc	51,613
Functional tests:	
Electrocardiograms	863
Basal metabolism rate	202
Miscellaneous tests	549
F. Electroencephalograms	138
Histopathology:	
A. Surgical Pathology:	
Specimens from one or more organs studied	287
Sections cut	888
Sections stained	574
B. Postmortem pathology:	
Autopsies (percentage of deaths 60.6)	257
Histologic study of autopsies	196
Brains dissected	233
Sections cut	3,356
Sections stained	1,559
Photographic:	
Films and prints (new admissions)	3,215
Photomicrographs, films and prints, etc	1,851
Motion pictures:	
Lantern slides	71
Lantern slide projections, lectures	159
Miscellaneous	30

The position of electroencephalographer continues to be vacant in spite of every effort to attract qualified applicants.

Research activities.—In March 1947 the President's Scientific Research Board requested information concerning all research projects under way or planned in the Federal Government. The report of this hospital to the Federal Security Agency included the following projects: (*a*) Research in Schizophrenia, Prognosis; (*b*) Research in Schizophrenia, Treatment; (*c*) Research in Schizophrenia: Clinical-Special, Psychological, Chemical and Electroencephalographic studies; (*d*) Clinical and other Studies on Patients suffering from Organic Psychoses; (*e*) Prefrontal Lobotomy; (*f*) Psychopathic Personality with or without Psychosis, with special reference to Crime; (*g*) Electroshock Therapy; (*h*) Psychological studies; (*i*) Studies of Various Psychopathological Conditions in Patients in the Navy; (*j*) Enzymes in the Central Nervous System; (*k*) Group Psychotherapy.

As in former years, postgraduate courses in psychiatry and neurology were conducted in connection with the training program for interns and for residents in psychiatry.

The Medical Society of St. Elizabeths Hospital, which was founded in 1937, held its tenth annual meeting May 2 and 3, 1947, with an attendance of over 200. The scientific meeting included an interesting symposium entitled "The Problem of Schizophrenia," at which time the various approaches to this problem as demonstrated by work in progress at the hospital were discussed.

In accordance with our national "Good Neighbor" policy, a number of visiting psychiatrists from countries of Central and South America spent varying periods of time at the hospital during the year in the course of their postgraduate training.

Department of Administration

Personnel activities.—Effective December 1, 1946, a reorganization of the Department of Medical Services resulted in the establishment of the new position of Assistant Superintendent, and the creation of an additional clinical division, making a total of three. Dr. Samuel A. Silk was promoted from the position of First Assistant Physician to that of Assistant Superintendent. Dr. Addison M. Duval was promoted from Clinical Director to succeed Dr. Silk as First Assistant Physician. Dr. Evelyn B. Reichenbach, Clinical Director, was assigned to Clinical Division No. 1. Dr. Edgar D. Griffin was promoted to the position of Clinical Director and assigned to Clinical Division No. 2, and Dr. Francis J. Tartaglino likewise promoted and assigned to Clinical Division No. 3.

At the close of the year 2,465 personnel were employed, compared with 2,170 at the close of the previous year. Personnel changes totaled 1,260 appointments, including 20 returns from military furlough, and 965 separations. Veterans in employment status at the end of the year totaled 721, of whom 22 were female. Separations by retirement totaled 38, of which 23 were for disability and 15 for age.

The most important development in personnel administration during the year was the return to civil-service rules from the temporary regulations in effect during the war. This necessitated major modifications of our recruitment program. Minimum entrance requirements were raised, previous work histories checked more carefully prior to entering the candidate on duty, and the employment interview itself was made more exacting. The data for June give an indication of the thoroughness of this process. During the month 70 candidates were recommended by the personnel section and 397 were rejected. Performance on the job also has been scrutinized more critically than was heretofore practicable. This was made possible by enlisting the assistance of a majority of the employees in developing job performance standards as a basis for efficiency ratings. Another outgrowth of the return to civil-service rules is the problem of securing permanent status for those temporary employees who merit it. At the close of the year 1,474 employees did not have civil-service status. Some of these will secure status by taking examinations given by the Civil Service Commission but the majority will take examinations given by a board of United States civil-service examiners to be created at the hospital.

Dietary service.—During the year the increasing availability of food supplies over the year previous eased the problem of satisfactory menu planning. While the rising trend in prices during the year created budget problems, it was possible to serve entirely satisfactory meals throughout the year, totaling approximately 6,800,000.

A plan whereby all dietary employees will have physical examinations each 6 months has been placed in effect. Thus far no conditions have been found which would prevent food handling by the various employees examined. All employees were vaccinated against smallpox, as were the other hospital employees.

Worn out and obsolete bakery and creamery equipment has been replaced, and it has also become possible to give attention to exhaust ventilating fans where needed in kitchens.

The customary instruction was given nursing students, 60 such students receiving a total of 180 hours in nutrition and 45 hours in diet therapy. One hundred and four student nurses received practical instruction, these students providing 36,932 especially prepared and supervised diets.

Farm activities.—Production of farm commodities for hospital consumption was increased over the past year by all farm units except the dairy. This unit continued operations in restricted space and grazing acreage. Milk production for the year was 211,823 gallons. The general condition of the dairy herd was improved because of more efficient handling and the ability to secure better feed during the year. Some progress in combating sterility in the herd was made by studies and experiments in collaboration with the Agricultural Research Center, Beltsville, Md.

At the request of the hospital a study of general farm operations and conditions was made by Dr. R. J. Saville, of the Bureau of Agricultural Economics, Department of Agriculture, who submitted a report and recommendations based upon findings of his survey. On account of lack of adequate farming land and the need for building space, plans to discontinue dairy operations have been generally formulated and disposition of the dairy herd will be made in steps, pointing to completion in the spring of 1948.

The piggery enterprise furnished 186,931 pounds of fresh pork products for hospital consumption. At the end of the year the herd numbered 715 hogs. On account of ever-increasing urbanization in the hospital vicinity and the encroachment of proposed new buildings upon the piggery site it was planned to transfer this profitable and useful operation to the Godding Croft tract in Maryland. This plan was unfortunately prevented because of state regulations against the feeding of garbage in this area. Operation of the piggery is expected to be discontinued at the end of the next slaughtering season. Breeding in the swine herd was discontinued as the first step in reducing the herd.

The truck gardens supplied the hospital with 28,675 bushels of green vegetables in addition to other seasonable products, and the poultry flock 20,698 dozen eggs in addition to 6,500 pounds of chicken for hospital consumption.

Construction and maintenance.—Plans and specifications for the construction of the previously authorized warehouse, laundry, and shops building and the infirmary building for patients were completed by the Public Buildings Administration of the Federal Works Agency. Repeated attempts by the Public Buildings Administration to obtain bids on this construction within available funds have been unsuccessful, owing to rapidly increasing construction costs.

Under authorization contained in the Labor-Federal Security Appropriation Act, 1947, the Public Buildings Administration began work on a replacement program study of the hospital. The study includes detailed topographical and boundary line surveys, space charts, and information concerning the condition of all present buildings, layout, and capacity of underground utilities and other interrelated information. Based upon these findings the study is to provide a complete replacement program and recommendations for future building sequence in steps based upon priority needs. The securing and assembling of data are now complete and the final survey and recommendations are expected by August 1, 1947.

Demolition and removal of the group of connected temporary buildings constructed in 1918, known as the semipermanent buildings, have been completed. These buildings, formerly housing infirm male patients, had been evacuated on account of their unsound structural condition and fire hazard. Upon the completion of the demolition the site was filled, graded, and top soiled preparatory to seasonal seeding and planting. With the space advantage gained by the building removal the entrance gate in this vicinity was widened and a new approach road, curbs and walks leading thereto are well on the way to completion.

A contract was placed and work completed for replacing the deteriorated guttering, valleys and downspouts of wartime material on two patients' buildings with new copper material.

Maintenance and repairs have proceeded under somewhat more favorable conditions than during the preceding years. Skilled labor, particularly in the building trades group, continues to be short, but some materials such as wire, screening, paint, and electrical supplies are now in more favorable supply. This has permitted better maintenance with more lasting materials pointing to generally higher future standards of upkeep than was possible during war years.

Miscellaneous.—Pending the availability of adequate warehousing facilities an auxiliary storeroom has been provided by the use of an old one-story, tile-walled structure known as the Glenside Building, originally used as an isolation ward. At the same time all procurement and supply offices were removed to that building, to a large extent integrating this portion of the work.

In the absence of adequate laundry facilities referred to in previous reports this function has continued to be carried on under great handicaps, not only from the standpoint of space, but also because of the increasing age and inadequacy of equipment. The laundry processed during the year totaled 7,000,000 pounds.

Industrial activities, including the shoeshop, sewing rooms, and mattress shop, operated very satisfactorily during the year, having the advantage of an increased supply of raw materials over the previous year. The improvement has been of particular benefit in the maintenance of an adequate supply of cotton body clothing which was in short supply during war years.

A total of 29 alarms was handled by the fire department, these representing small fires quickly extinguished. Property damage resulting therefrom totaled $1,195. Routine inspections of buildings and areas in addition to extinguisher care and maintenance were made by fire department members.

Wards were well supplied with flowers from the greenhouses during the year, including the furnishing of lilies and poinsettias during the Easter and Christmas seasons respectively.

Needs of the Hospital

Many recommendations for improvements throughout the hospital made during the past few years have not been feasible on account of the shortage of materials and the high cost of construction during the war and postwar periods. They are all a matter of record, but the most urgent ones are repeated here.

Cafeteria facilities for CT (continued treatment) buildings Nos. 7 and 8: These two buildings were finished during the early war years and because of shortage of necessary equipment the buildings were finished without cafeteria facilities, making it necessary for patients from eight different wards located on two floors to travel a long distance through tunnels to the cafeterias located on two floors of another building some distance away. The available cafeterias are wholly inadequate for this purpose. Several shifts must be used in feeding the patients, resulting in great confusion to patients and ward personnel. The chief difficulty, however, is that with this arrangement the utilization of the two buildings, Nos. 7 and 8, is greatly lessened since only quiet ambulatory patients can be housed in these buildings, whereas our greatest need is bed space for patients belonging to the elderly, physically feeble and mentally disturbed categories. It is strongly urged that cafeterias be installed in these two buildings as soon as possible.

Howard Hall building.—This is the maximum security building of this hospital, which cares for the most dangerous patients as well as those under criminal charges. It was established as a separate unit more than 30 years ago when the institution was one-third its present size and when only far advanced psychotic patients were sent here from jails and penitentiaries. During the past 10 or more years there has been a tendency to look upon certain crimes and misdemeanors as an expression of disease requiring treatment rather than punishment or isolation. Due to this trend the hospital is admitting more and more acute and recoverable patients, sent here through various courts. Howard Hall is inadequate to meet the above demands; it lacks adequate hydrotherapeutic, recreational, occupational, and various other facilities. There is an urgent need for a building of modern design, of about 400 beds capacity, to enable us to classify, treat, and care for recoverable actively psychotic patients who must be cared for in a maximum security building.

West Lodge service (for colored male patients).—This unit is a combination of receiving and continued treatment wards. The admission rate of colored men has been steadily increasing. The West Lodge building, which is utilized for the admission of new patients, was originally erected in 1856. It is inadequate in several respects and is lacking in the necessary facilities of a receiving department. A new building for the reception of colored men is therefore urgently recommended. A modern building of 300 beds capacity with the necessary facilities to enable us to care for the acute recoverable patients is urgently needed.

Que service (for colored women patients).—Prompt replacement of Oaks A, B, and C buildings is urgently needed. These buildings are a fire hazard, poorly planned, and difficult to maintain hygienically.

Legislation

The suggestions contained in previous annual reports are renewed, namely, legislation providing for the care of United States citizens without State residence becoming mentally ill in countries other than Canada, and for the family care of patients.

Legislation permitting voluntary admissions to Saint Elizabeths Hospital is urgently needed, and has recently been endorsed by the Medical Society of the District of Columbia and by the hospital council. This type of legislation is found in all but 14 States of the Union, and is urgently needed here. As it is, a person who recognizes that he is mentally ill and in need of hospital treatment cannot enter Saint Elizabeths Hospital unless after a painful and complicated series of legal procedures he is declared insane and deprived of his civil rights. It is to be hoped that the commitment procedures in the District of Columbia may some day be brought into line with those of the more progressive States; in the meantime, a voluntary admission law would go far to improve the lot of the mentally ill of the District.

STAFF PUBLICATIONS FOR THE FISCAL YEAR

July 1, 1946 to June 30, 1947

OVERHOLSER, WINFRED, *Superintendent:*

Classification and Statistics of Mental Disease. Proceedings, The George Washington University School of Medicine Intensive Postgraduate Courses, Psychiatry and Neurology, 2: 75–78, 1946.

Mental Hygiene. Proceedings, The George Washington University School of Medicine. Same, Psychiatry and Neurology, 2: 94–101, 1946.

The Chicago Meeting (Comment). American Journal of Psychiatry, 103: 123–124, July 1946.

The Future of Mental Hospitals (Editorial). Medical Annals of the District of Columbia, 15: 392, Aug. 1946.

The Crisis in Mental Health, P. C. A. Herald, 13: 1, Sept. 1946. (Published by Public Charities Association.)

Mental Hygiene. Proceedings of the American Philosophical Society, 90: 259–264, Sept. 13, 1946.

Book review: Total War and the Human Mind, by A. M. Meerloo (International Universities Press, 1945). Psychoanalytic Quarterly, 15: 536–537, Oct. 1946.

Women and Modern Stress. Mental Hygiene, 30: 545–558, Oct. 1946.

Foreword—Annual Meeting of the Medical Society of Saint Elizabeths Hospital, Apr. 26–27, 1946, Washington, D. C. Quarterly Review of Psychiatry and Neurology, 1: 410–411, Oct. 1946.

Book review: Their Mothers' Sons, by Edward A. Strecker (Lippincott 1946). The Sunday Star, Nov. 10, 1946.

Joseph Priestly: Scientist, Citizen and Prophet. The Christian Register Unitarian, 125: 434–435, Nov. 1946.

Consignacion Judicial Hospitalaria los Enajenados (with Henry Weihofen). Revista Mexicana de Psychiatria, Neurologia y Medicina Legal 13: 47–66, Dec. 1946.

Forensic Psychiatry. Chapter 24, Progress in Neurology and Psychiatry; An Annual Review, Vol. 2, 1947 (Grune & Stratton, 1947).

Administrative, Forensic and Military Psychiatry. American Journal of Psychiatry, 103: 553—555, Jan. 1947.

Book review: Modern Woman: the Lost Sex, by Ferdinand Lundberg and Marynia F. Farnham (Harper & Bros., 1947). The Sunday Star, Jan. 12, 1947.

Book review: The Memoirs of Dr. Felix Kersten, edited by Herma Briffault and Introduction by Konrad Heiden (Doubleday 1947). The Sunday Star, Mar. 23, 1947.

Physician and the Mental Patient (Editorial). Medical Annals of the District of Columbia, 16: 258–259, May 1947.

Book review: Conceptions of Modern Psychiatry, by Harry Stack Sullivan (William Alanson Foundation, 1947). The Sunday Star, June 29, 1947.

Mental Disorder Affecting the Degree of a Crime (with Henry Weihofen). The Yale Law Journal, 56: 959–981, June 1947.

ABRAHAMS, JOSEPH, *Medical Officer:*

Group Psychotherapy at an Army Rehabilitation Center (with Lloyd W. McCorkle). Diseases of the Nervous System, 8: 50–62, Feb. 1947.

ACKERMAN, ALBERT, *Medical Officer:*

Book review: Technique of Psychoanalytic Therapy, by Landor Lorand (International Universities Press, 1946). Quarterly Review of Psychiatry and Neurology, 1: 406–408, Oct. 1946.

ASHBY, WINIFRED, *Bacteriologist:*

The Pattern of Enzyme Distribution in the Brain and Mental Function. Journal of Nervous and Mental Disease, 105: 107–115, Feb. 1947.

BELLAK, LEOPOLD, *Medical Officer:*

The Extension of Basic Scientific Laws to Psychoanalysis and to Psychology (with Rudolf Ekstein). Psychoanalytical Review, 33: 306–313, July 1946.

The Pre-Psychotic Personality in Dementia Praecox—Study of 100 Cases in the Navy (with Blanche Parcell). Psychiatric Quarterly, 20: 627–637, Oct. 1946.

Book Review: Young Man, You Are Normal, by Earnest Hooton (G. P. Putnam's Sons, 1945). American Journal of Psychiatry, 103: 430–431, Nov. 1946.

On the Etiology of Dementia Praecox; A Partial Review of the Literature 1935 to 1945 and an Attempt at Conceptualization (with Elizabeth Willson). Journal of Nervous and Mental Disease, 105: 1–24, Jan. 1947.

CRUVANT, BERNARD A., *Senior Medical Officer:*

Pregmatic Psychotherapy in Military Training Centers. American Journal of Psychiatry, 103: 622–629, March 1947.

DUVAL, ADDISON M., *First Assistant Physician:*

Treatment in Psychiatry. Proceedings, The George Washington University School of Medicine Intensive Postgraduate Courses, Psychiatry and Neurology, 2: 166–179, 1946.

Book review: Psychiatry Today and Tomorrow, by Samuel Z. Orgel (International Universities Press, 1946). Quarterly Review of Psychiatry and Neurology, 1: 321, July 1946.

Treatment in Psychiatry. Medical Annals of the District of Columbia, 15: 363–374, Aug. 1946.

Book review: The Biology of Schizophrenia, by R. G. Hoskins (Norton, 1946). Quarterly Review of Psychiatry and Neurology, 1: 408–409, Oct. 1946.

Book review: Current Therapies of Personality Disorders, edited by Bernard Glueck (Grune & Stratton, 1946). Psychiatry, 9: 409, Nov. 1946.

Book review: The Biology of Schizophrenia, by R. G. Hoskins (Norton, 1946). Scientific Monthly, 64: 87–88, Jan. 1947.

Book review: Anti-Semitism: A Social Disease, edited by Ernst Simmel (International Universities Press, 1946). Quarterly Review of Psychiatry and Neurology, 2: 266–267, Apr. 1947.

The Use of Electro-Shock Therapy in Psychiatric Illness Complicated by Pulmonary Tuberculosis (with Otto Allen Will). Journal of Nervous and Mental Disease, 105: 637–646, June 1947.

FARLEY, OTIS, *Senior Medical Officer:*

Book review: Experimental Hypertension, by William Goldring and others (N. Y. Academy of Medicine, 1946). Psychiatry, 10: 114–115, Feb. 1947.

FONG, THEODORE C., *Senior Medical Officer:*

The Treatment of Neurosyphilis. Quarterly Review of Psychiatry and Neurology, 1: 453–457, Oct. 1946.

Frank, Earl B., *Dentist:*

Book review: Psychobiologic Foundations in Dentistry, by Edward S. Ryan (Charles C. Thomas Co., 1946). Quarterly Review of Psychiatry and Neurology, 2: 267–269, Apr. 1947.

Griffin, E. D., *Clinical Director:*

The Affective Psychoses. Proceedings, The George Washington University School of Medicine Intensive Postgraduate Courses, Psychiatry and Neurology, 2: 114–124, 1946.

Psychopathic Personality. Proceedings, The George Washington University School of Medicine. Same, Psychiatry and Neurology, 2: 141–146, 1946.

Hazard Louise B., *Occupational Therapist:*

Working drawings for a Jewel Case made entirely of salvage materials. Won first prize of $30, and special prize of $15 for 100 percent salvage material. Drawings published in: The Idea Exchange, p. 4–5, Apr. 1947 (sponsored by American Occupational Therapy Association, Kate Rowland, editor, P. O. Box 1135, Baltimore 2, Md.).

Herriot, Frances, *Psychodramatist:*

Psychodrama. Quarterly Review of Psychiatry and Neurology, 1: 458–462, Oct. 1946.

Ives, Margaret, *Psychologist:*

Book review: Psychology of Seeing, by Herman F. Brandt (Philosophical Library, 1945). Psychiatry, 9: 412–413, Nov. 1946.

Karpman, Ben, *Senior Medical Officer:*

Felonious Assault Revealed as a Symptom of Abnormal Sexuality. Journal of Criminal Law and Criminology, 37: 193–215, Sept.–Oct. 1946.

The Evolution of a Psychiatrist. Quarterly Review of Psychiatry and Neurology, 1: 411–421, Oct. 1946.

Incidental Comments on Psychotherapy. Quarterly Review of Psychiatry and Neurology, 1: 430–432, Oct. 1946.

Book review: Unhappy Marriage and Divorce, by Edmund Bergler (International Universities Press, 1946). Quarterly Review of Psychiatry and Neurology, 1: 406, Oct. 1946.

A Yardstick for Measuring Psychopathy. Federal Probation, 10: 26–31, Oct.–Dec. 1946.

Passive Parasitic Psychopathy. Part 1, Psychoanalytic Review, 34: 102–118, Jan. 1947. Part 2, Same 34: 198–222, Apr. 1947.

Katzenelbogen, S., *Director of Laboratories and Research:*

Basic Concepts in Psychiatry. Proceedings, The George Washington University School of Medicine Intensive Postgraduate Courses, Psychiatry and Neurology, 2: 79–87, 1946.

Principles of a Personality Study. Proceedings, The George Washington University School of Medicine. Same, Psychiatry and Neurology, 2: 102–110, 1946.

Psychosomatic Medicine. Proceedings, The George Washington University School of Medicine. Same, Psychiatry and Neurology, 2: 154–165, 1946.

Schizophrenia. Proceedings, The George Washington University School of Medicine. Same, Psychiatry and Neurology, 2: 125–136, 1946.

Book review: Experimental Catatonia, by Herman H. DeJong (Williams and Wilkins, 1945). Psychiatry 9: 279–280, Aug. 1946.

Recent Developments in Neurology and Psychiatry. Medical Annals of the District of Columbia, 15: 413–419, Sept. 1946.

Psychobiological Therapy. Quarterly Review of Psychiatry and Neurology, 1: 432–438, Oct. 1946.

Book review: The Biology of Schizophrenia, by R. G. Hoskins (Norton, 1946). Psychiatry, 9: 402, Nov. 1946.

Book review: Progress in Neurology and Psychiatry, edited by E. S. Spiegel (Grune & Stratton, 1946). Psychiatry, 10: 112, Feb. 1947.

Book review: Psychiatry Today and Tomorrow, by Samuel Z. Orgel (International Universities Press, 1946). Psychiatry, 10: 112, Feb. 1947.

KENDIG, ISABELLE V., *Psychologist:*

Psychology Yesterday and Today. Proceedings, The George Washington University School of Medicine Intensive Postgraduate Courses, Psychiatry and Neurology 2: 88–93, 1946.

Book review: Twentieth Century Psychology, edited by Philip Lawrence Harriman (Philosophical Library, 1946). Psychiatry 9: 411, Nov. 1946.

Book review: The Clinical Application of the Rorschach Test, by Ruth Bochner and Florence Halpern (second edition, Grune & Stratton, 1945). Psychiatry 9: 411–412, Nov. 1946.

Book review: Problems in Abnormal Behavior, by Nathaniel Thornton (Blakiston, 1946). Quarterly Review of Psychiatry and Neurology 2: 106–107, Jan. 1947.

KLEINERMAN, MORRIS, *Senior Medical Officer:*

Book review: A Psychiatric Primer for the Veteran's Family and Friends, by Alexander G. Dumas and Grace Keen (University of Minnesota Press, 1945). Journal of Home Economics 8: 529, Oct. 1946.

Book review: Narco-Analysis, by J. Stephen Horsley (Oxford University Press, 1946). Psychiatry 9: 409–410, Nov. 1946.

The Present Status of Electroshock Therapy. American Practitioner 1: 299–302, Feb. 1947.

LANGENSTRASS, KARL H., *Pathologist:*

Psychosynthesis of Amnesia (with George D. Weickhardt). Journal of Nervous and Mental Disease 105: 238–254, Mar. 1947.

MERRILL, MRS. ARVILLA D., *Chief Occupational Therapist:*

Occupational Therapy. Pages 138–158 of Chapter 6, Textbook for Psychiatric Attendants, by Laura W. Fitzsimmons (Macmillan, 1947).

MYERS, HENRY J., *Medical Officer:*

Comments on Knight Dunlap's article: Psychoanalysis and the Unconscious (letter). American Journal of Psychiatry 103: 116, July 1946.

The Ninety-Sixth General Hospital; the Story of an Army Neuropsychiatric Hospital. Diseases of the Nervous System 7: 310–313, Oct. 1946.

Abreaction in the Military Setting (with Harold Rosen). Archives of Neurology and Psychiatry 57: 161–172, Feb. 1947.

Stereotypy in Schizophrenia. Psychiatric Quarterly 21: 294–304, Apr. 1947.

NEUMANN, META A., *Scientist:*

Porencephaly; A Clinicopathologic Study (with Robert Cohn). Journal of Neuropathology and Experimental Neurology 5: 257–270, July 1946.

Chronic Progressive Subcortical Encephalopathy. Journal of Gerontology 2: 57–64, Jan. 1947.

OLINICK, STANLEY L., *Medical Officer:*

Book review: The Mind and Death of a Genius, by David Abrahamsen (Columbia University Press, 1946). Quarterly Review of Psychiatry and Neurology 2: 106, Jan. 1947.

Book review: The Ego and the Mechanisms of Defense, by Anna Freud (International Universities Press, 1946). Quarterly Review of Psychiatry and Neurology 2: 265–266, Apr. 1947.

PARCELL, BLANCHE, *Psychiatric Case Supervisor*, A. R. C.:

The Pre-Psychotic Personality in Dementia Praecox—Study of 100 Cases in the Navy (with Leopold Bellak). Psychiatric Quarterly 20: 627–637, Oct. 1946.

REINER, ELLIOT R., *Medical Officer:*

Penicillin Therapy in Neurology and Psychiatry (with George D. Weickhardt). Medical Annals of the District of Columbia 15: 488–494, Oct. 1946.

Penicillin Therapy in Neurology and Psychiatry (with George D. Weickhardt). Quarterly Review of Psychiatry and Neurology 1: 421–430, Oct. 1946.

SALZMAN, LEON, *Medical Officer:*

An Evaluation of Shock Therapy. Quarterly Review of Psychiatry and Neurology 1: 467–471, Oct. 1946.

Book review: Psychiatry Today and Tomorrow, by Samuel Z. Orgel (International Universities Press, 1946). Federal Probation 11: 62–63, Jan.–Mar. 1947.

SILK, SAMUEL A., *Assistant Superintendent:*

Posttraumatic Psychoses and Neuroses. Proceedings, The George Washington University School of Medicine Intensive Postgraduate Courses, Psychiatry and Neurology, 2: 147–153, 1946.

STEVENS, HAROLD, *Medical Officer:*

The Reflexes. Proceedings, The George Washington University School of Medicine Intensive Postgraduate Courses, Psychiatry and Neurology, 2: 20–23, 1946.

Psychiatric Aspects of Epilepsy. Proceedings, The George Washington University School of Medicine. Same, Psychiatry and Neurology, 2: 53–57, 1946.

WEICKHARDT, GEORGE D., *Medical Officer:*

Meningovascular Syphilis. Proceedings, The George Washington University School of Medicine Intensive Postgradue Courses, Psychiatry and Neurology, 2: 43–48, 1946.

Penicillin Therapy in Neurology and Psychiatry (with Elliot R. Reiner). Medical Annals of the District of Columbia, 15: 488–494, Oct. 1946.

Penicillin Therapy in Neurology and Psychiatry (with Elliot R. Reiner). Quarterly Review of Psychiatry and Neurology, 1: 421–430, Oct. 1946.

Penicillin Treatment in Infection of the Nervous System. The Quarterly Review (Graduate Nurses Association), pp. 5 and 20, Dec. 1946.

WILLSON, ELIZABETH, *Librarian:*

On the Etiology of Dementia Praecox; A Partial Review of the Literature 1935 to 1945 and an Attempt at Conceptualization (with Leopold Bellak). Journal of Nervous and Mental Disease, 105: 1–24, Jan. 1947.

YOCHELSON, LEON, *Medical Officer:*

Book review: Chronic Disease and Psychological Invalidism, by Jurgen Ruesch et al. (Psychosomatic Monograph, 1946). Quarterly Review of Psychiatry and Neurology, 2: 263–265, Apr. 1947.

YOUNG, HAZEL C., *Assistant Director of Nursing Education:*

Training Courses on All Levels Answered New Needs in Psychiatry. Modern Hospital, 68: 75, May 1947.

Section Five

FOOD AND DRUG ADMINISTRATION

INTRODUCTION

The past year has been characterized by a number of judicial decisions affirming governmental interpretations of the Food, Drug, and Cosmetic Act and by others definitely restricting the degree of public protection which the act was believed to provide.

Two of the adverse decisions have led to serious consideration by Congress of clarifying amendatory legislation which is now pending. The Congress promptly passed an amendment recommended by the Federal Security Administrator, requiring pretesting and certification of all streptomycin preparations. Outstanding in the regulatory actions were those directed against foods containing poisonous preservatives, foods containing mineral oil as a substitute for food oils, and worthless therapeutic devices. Increased attention was given to laboratory and manufacturing controls in drug plants, and to imported products.

A report on the enforcement of the Food, Drug, and Cosmetic Act inevitably emphasizes instances of adulteration and misbranding due to negligence and deliberate intent. In fairness, it must be stated that the record of violations presented in this report is not an indictment of the majority of American producers and handlers of foods, drugs, and cosmetics. Most of the members of these industries willingly conform to requirements imposed for the benefit of consumers and themselves. They have the scientific knowledge, the technical equipment, and the will to produce articles which meet both the spirit and the letter of the law; they recognize that consumer and producer interests are identical, and that practices adverse to consumer welfare are likewise contrary to the interest of the industry.

Congress in enacting the Food, Drug, and Cosmetic Act declared as its clear objective the principle of promoting "honesty and fair dealing in the interest of the consumer"; in the language of the Supreme Court, "the purposes of this legislation touch phases of the lives and health of people which, in the circumstances of modern industrialism, are largely beyond self-protection." The Food and Drug Administration in enforcing the act must keep ever before it the purposes of Congress. It must unrelentingly invoke the legal remedies provided by the statute to control violative actions by that small proportion of the industries which, through negligence, ignorance, or deliberation, ignores the requirements of the law to the detriment both of the consumer and the ethical manufacturer.

The enforcement program of the Food and Drug Administration is in no small measure dependent upon the advice and assistance of scientists not in the Government service. Public-spirited individuals and associations in many fields of science give generously of their time and knowledge. Their assistance is invaluable in planning enforcement programs and in putting them into effect. The expert testimony of recognized authorities has been the deciding factor in support of the Government's charges in many cases contested in the courts. Successful enforcement operations depend, also, upon the close cooperation of Federal, State, and local agencies.

FOOD, DRUG, AND COSMETIC ACT

Food Adulterations Involving Health

Deleterious Preservatives and "Stabilizers"

Legal actions to prevent the use of monochloracetic acid and quaternary ammonium compounds in food have been discussed in the past two annual reports. The use of these deleterious substances in the fiscal year 1947 was largely diverted from soft drinks, salad dressings, pickles, sirups, and other foods to alcoholic beverages, particularly light sweet wines.

After a court decision which permitted the shipment of monochloracetic acid itself under labeling which stated its toxic properties, the regulatory work was concentrated on reporting shipments of toxic preservatives going to food manufacturers, and actions against interstate shipments of foods which contained them. This program was complicated by surreptitious dealings in these poisons by salesmen who often failed to disclose to manufacturers the fact that foods containing such ingredients would be in violation of the Food, Drug, and Cosmetic Act. The use of toxic preservatives resulted in 152 seizures of wine and beer. In addition, State quarantines were imposed on large quantities that had not moved interstate, and substantial lots were voluntarily destroyed by manufacturers.

Other seizures involving these deleterious compounds included sporadic lots of beverage bases, cane sirup intended for use in a carbonated beverage, a confection, and prune juice. Six shipments of solutions of quaternary ammonium compounds were seized because the labels failed to state the material fact that the article was poisonous.

Litigation terminated during the fiscal year based upon the shipment of beverage concentrates containing monochloracetic acid included the $5,000 fine mentioned in the last annual report in the discussion of widespread illness traced to the consumption of orange beverages made from this base. A fine of $800 was levied late in the year against another shipper of beverage bases containing monochloracetic acid; the defendant firm is the principal distributor of the preservative involved in the Nation-wide seizures of wine and beer. Many of the latter actions remain unadjudicated pending efforts by the industry to develop a practical method for the removal of the deleterious ingredient.

Three seizures, early in the fiscal year, of frozen peaches with thiourea added to prevent darkening stopped the use of this dangerous antioxidant. Samples of these lots fed to rats in the Administration's pharmacological laboratories killed the animals. The dangerous nature of this substance was pointed out in the 1946 report under Scientific Investigations, which stated that citrus growers, who had proposed its use against rot and mold, voluntarily abandoned their plans when its dangerous nature was disclosed.

One unusual incident involving extreme carelessness was encountered when a chemical supply house furnished hydroquinone, a toxic photographic chemical, under a sodium benzoate label to a manufacturer of chocolate frosting and pickles. The products in which this substance was used spoiled but no seizures were made because all lots were recalled by the shipper and destroyed. Seizure was effected of two lots of a borax compound sold to prevent skippers in cured meats.

Spray Residues

Eleven shipments of apples originating in the Central States were seized because of excessive lead residues. Three Canadian shipments offered for entry were refused admission because they bore high residues.

Surveys of the effects of using DDT, which is being substituted to a considerable extent for lead arsenate as an apple spray, did not disclose objectionable residues. It was found, however, that while this new insecticide is effective against the codling moth, it also destroys the normal insect enemies of other plant pests. The use of additional insecticides to control the pests formerly destroyed by natural enemies may give rise to further regulatory problems.

The chapter on Court Interpretations records a circuit court decision on the official fluorine tolerance which renders it invalid in its present form; this apparently will require new hearings with a view to rewording the regulation.

Mineral Oil in Foods

A few years ago the substitution of mineral oil for vegetable oils in foods was looked upon as an economic cheat rather than as a menace to health. Within the past 3 or 4 years, however, there has been growing evidence that mineral oil is not merely a fraudulent substitute for nutritious food oils, but that it is definitely deleterious by reason of its effect on assimilation of vitamins A and D, and likewise vitamin K, the blood-clotting factor.

In a 2-week seizure trial in 1947, involving a mayonnaise-type product containing 77 percent mineral oil, convincing medical testimony was adduced on behalf of the Government resulting in a jury verdict upholding the charge of adulteration. In a second contested case, involving mayonnaise containing 50 percent mineral oil, the court overruled the claimant's contention that mineral oil in a food product is not a deleterious ingredient and ordered its destruction. In another contested seizure, brought against popcorn seasoning containing 6 percent mineral oil before evidence of the deleterious nature of mineral oil was available, the court dismissed the seizure because no charge was made to show that the product is injurious to health and no standard has been promulgated for the article. An appeal for review of this decision by a higher court has been recommended. Fines were assessed against a salad dressing manufacturer and a confectioner for the shipment of foods containing mineral oil. The confectioner was given a 14-month suspended jail sentence in addition to being fined $5,000. He is now in jail for another violation of the act during the period of the suspended sentence.

Forty-seven seizure actions in 1947 were based upon the presence of mineral oil in articles labeled as mayonnaise, salad dressing, and french dressing. Other seizures based upon mineral oil as an adulterant in foods included salad oil, confectionery, and smoked salmon. Seizures were made also of mineral oil under a trade name that failed to designate the product by its common name. One of the most ingenious schemes to distribute mineral oil for use in foods was that of a firm which sold an oil ostensibly for cleaning machinery in popcorn-manufacturing establishments. The salesman, however, recommended its use in seasoning popcorn; seizure was effected.

Accidental Contamination and Salvage Operations

Glass in coffee was responsible for three seizures of material that was being salvaged despite knowledge that it contained glass. Two of these lots had been contaminated by the breakage of glass containers during the packaging operation. This coffee was blended with the regular run of roasted coffee with the resulting contamination of the lots by many glass fragments, some a quarter of an inch in length. In the third action, coffee similarly contaminated was shipped to a distant city, allegedly for use as fertilizer. There it was diverted to a salvage agent who attempted to remove the glass and then sold it for human consumption.

Other seizures of food containing dangerous or nonnutritive substances included dried, pitted prunes containing splinters of pits, canned beans with burrs, and vinegar contaminated with zinc from the bottle caps. A criminal prosecution resulting in a fine of $400 followed the careless use of a caustic solution in washing down bottling equipment, which resulted in the presence of lye in a bottled orange beverage.

Surveillance was maintained, in cooperation with the appropriate State and local officials, of all lots of foods damaged in railroad wrecks, fires, floods, and in transit. Federal seizure was effected of 40,000 bushels of corn that had been contaminated with mercury while being transported in barges from the producing areas to a Gulf port. Nearly 15,000 pounds of tea bags that acquired a creosote odor during shipment, and over 26,000 barrels of mustard which had been contaminated with zinc chromate in transit, were likewise seized.

Damage to stored foods and drugs by floods and tornadoes was fortunately small. Joint supervision of articles submerged in polluted waters, with the heaviest burden on the State and local agencies, prevented the outbreaks of illness such catastrophes are capable of bringing.

Detention of Dangerous Imported Foods

The examination of imported liquors for the presence of glass slivers and particles was continued on a restricted scale because of improvement noted in the last report. Attention was concentrated on products from sources where violations persisted. Approximately 120,000 cases were detained for the removal of glass by filtering before entry was permitted. Eight lots containing nonpermitted colors were refused entry.

No detentions of sardines bearing excessive lead from soldered tins were necessary because all entries in 1947 were packed in crimped tins as a result of previous difficulties when lead solder was used.

Imports of maple sirup and maple sugar from Canada more than doubled in quantity over entries for the previous year and the percentage detained for deleading increased from 58 to nearly 82. The sirup was released after the lead was removed.

Seven lots of canned butter clams were detained because of the presence of *Gonyaulax* toxin, a poisonous substance acquired when the shellfish feed on small plankton organisms. Entry was denied an importation of Swedish caviar in which boric acid was found.

Food-Poisoning Investigations

A review of the 63 food-poisoning cases coming to the attention of the Food and Drug Administration in the fiscal year emphasizes again that most of the resulting illnesses were caused by insanitary handling or inadequate refrigeration of foods. Most of them would have been eliminated by the proper application of the basic principles of good housekeeping in the home or in the commercial food-handling establishment where they were prepared.

The 30 outbreaks of typical gastroenteritis investigated by or reported to the Administration involved staphylococcus infection of the food in 20 cases involving over 1,300 individuals. In 12 of these outbreaks 20 or more individuals were affected, while in only 2 were less than 5 involved. Doubtless many other cases in which only a few persons were made ill were never reported to physicians or public agencies. The infected foods included cream- and custard-filled pastries, ready-to-eat ham, turkey, tongue, and potato salad. In a majority of the outbreaks the foods were contaminated in the course of their preparation through insanitary handling or contact with individuals with infected sores, and subsequently the foods were not refrigerated adequately to prevent the growth of the toxin-producing organisms. Typical of these cases is one in which custard-filled eclairs were loaded by the bakery into its delivery truck and permitted to stand over night in a heated garage; over 100 persons suffered illness as a result. Following the outbreak, the pastry manufacturers in that locality met and voluntarily took measures to ensure proper refrigeration of similar products during storage and transit.

In 10 outbreaks of gastroenteritis, in which the causative microorganism was not apparent, the foods suspected by the victims had moved in interstate commerce. No abnormalities could be found in the foods suspected in six of these outbreaks. Three outbreaks involved canned foods in which evidence of leaking cans was found in other parts of the pack; although food-poisoning organisms could not be isolated, defective cans contaminated with such bacteria may have been responsible. The tenth case involved a canned fishery product which showed decomposition. In all of these instances the defective cans or the decomposed materials were removed before the lots were released. A fine of $1,800 was imposed upon an insanitary bakery which shipped products that caused a large number of illnesses. The criminal action was initiated in the previous year.

In the 11 outbreaks of botulism recorded, 39 persons were affected and 20 deaths resulted. Home-canned foods were incriminated in 10 of these outbreaks; chili, chili peppers, beans, asparagus, spinach, okra, peaches, and figs were involved. In the other botulism case, investigated by local authorities, the evidence pointed to commercially canned chili of local origin but definite proof was not obtained.

Consumption of clams taken, despite posted warnings, from a west coast beach affected three persons, one fatally. It was known that the clams were contaminated with poisonous plankton organisms producing *Gonyaulax* toxin.

Four outbreaks, with two deaths, resulted from the contamination of foods with poisonous chemicals. Numerous persons were made ill by the consumption of pastry in which a cement sealing compound containing fluorine, zinc, and magnesium had been accidentally incorporated in place of vegetable oils. This error resulted from the reuse of a food container for other purposes without altering the label. As stated in a previous section, a lye solution used to clean bottling equipment and not properly removed resulted in a complaint of throat burn by the purchaser of a bottle of orange beverage. Other cases of chemical poisoning resulted from the addition of arsenic to baking powder and the consumption of a can of peaches which had been held for several years and had become detinned, resulting in the blackening of the tongue and lips of the consumers.

At least 19 cases of typhoid fever following the clogging of a sewer pipe in the home of a typhoid carrier located just above a fruit and vegetable stand. The proprietor had believed his duty adequately performed when he discarded the products visibly contaminated when the sewer overflowed on the food.

Ten other reports of illnesses, all involving foods of interstate origin, were thoroughly investigated by the Administration. In only one case was there any evidence that the food alleged to have been responsible could have caused the illness attributed to it. In this instance, sausage which had produced nausea in four persons was found to contain excessive fat and to be rancid. The case was referred to the Bureau of Animal Industry, Department of Agriculture. Four reports involving an undetermined number of children implicated bubble gun. Ulceration of the tongue and gums was the most frequent complaint. In all instances bacteriological and chemical investigation failed to reveal any injurious ingredients; the gum was chewed by monkeys and human volunteers with no other ill effects than aching jaws when the "wad" reached the size apparently considered most desirable by bubble gum enthusiasts.

The remaining six outbreaks reported were all investigated but it was found that foods were not involved. In one case, not tabulated as a food-poisoning investigation, overexposure to an insect spray containing DDT was suspected but cardiac trouble probably was a contributing, if not the direct, cause of death.

Food Adulterations Involving Filth and Decomposition

The wastage of food consumed or defiled by rodents and insects during a period when millions of people throughout the world are hungry is tragic and inexcusable. Food decomposition resulting from careless handling is equally deplorable. Conservation measures are not a simple matter of policing by Federal and local agencies.

The Government and the organized industry groups must bring the pressure and offer the guidance that will make the food protection campaigns effective, but the "stop waste" program requires participation by every food handler.

Organized industry efforts to effect basic corrections of conditions and practices that formerly caused tremendous losses of food were recorded in the 1946 report. These efforts have been continued by some groups on an even more intensive scale. Sanitation schools have been held in a number of cities throughout the country to improve practices in the baking industry. The dairy, confectionery, canning, and milling industry groups have also continued to stress sanitation in group meetings, as well as in the trade press. Federal enforcement personnel have joined State and local agents in efforts to bring improvements by educational programs.

Proper storage of raw materials is an intimate part of good sanitary practice. Seizure actions against food contaminated in storage after interstate shipment were, however, terminated abruptly in the fiscal year 1947 as a result of court construction of Federal jurisdiction which is discussed more fully under Court Interpretations. This decision, in effect, precludes Federal seizure of food that becomes adulterated after its interstate journey is completed, thus ending a protection the consumer and the manufacturer had been receiving for 40 years. Remedial legislation to restore the protection formerly accorded is discussed under Legislation and Regulation-Making Activities. Meanwhile State and local authorities must assume the burden of policing interstate products which have become contaminated after interstate movement has ceased.

The immediate effect of the decision was to decrease the number of food seizures based on filth and decomposition to 994 in 1947, as compared with more than 1,700 in each of the two previous years. In 1946, 70 percent of all food seizures were chargeable to filth and decomposition; in 1947, only 53 percent. When lots of food are seized because portions are unfit for human use, the courts may order segregation under bond and inspectional supervision, so that good portions may be returned to food channels and the unfit portions denatured to preclude such use and then diverted to animal feed, fertilizer, or whatever suitable use may be found for them.

The courts have continued their unrelenting attitude against the interstate shipment of filthy food, insanitary practices and factories, and the failure to protect sound food through negligence. Four jail sentences and 34 fines of from $1,000 to $3,000 were imposed in 1947 and 15 injunctions were granted to restrain shipments of unfit food. Five other injunction requests are awaiting court hearing. Fines of $1,000 were imposed in two cases involving contempt of injunction orders.

The following pages summarize the regulatory problems involved and the actions taken.

Cereal Products and Confectionery

The marked decrease in flour seizures reflects the proportion of cases based on terminal infestation in previous years. The 234 actions in 1946 were taken in most cases against flour that reached the storage houses in clean condition but there became contaminated by rodents and insects. Of the 29 filthy flour seizures effected in 1947 a few were made against terminally infested material before the higher court decision was rendered ruling out a seizure made on interstate goods that became contaminated after arrival; most of the year's actions involved flour that was contaminated before it left the factory. No new criminal prosecution or injunction actions were instituted, but one criminal action initiated in the previous year against a milling company that was operating under insanitary conditions and shipping filthy flour in interstate commerce was terminated with a fine of $1,000, and lesser penalties were levied against other millers responsible for similar violations.

Of the 22 corn meal seizures effected, many charged contamination with rodent excreta fragments. As in the past, an important source of contamination in corn meal was corn that had been infested with rodents before the grinding process. Twenty-two criminal actions were brought against shippers of filthy corn meal, two fines of $1,000 or more were imposed, and two partners of a firm which was fined $1,500 were given jail sentences of 9 and 3 months, respectively, which were suspended, and each individual was placed on probation for 3 years on condition that he not violate the Food, Drug, and Cosmetic Act. The partner receiving the 9-month sentence had been fined $500 previously for shipping rodent-contaminated corn meal and had been warned to expect severe treatment if he came into court again.

Trade association activities to bring about better sanitation throughout the baking industry, coupled with concentrated regulatory efforts toward the same objective, have resulted in material improvement both in plant conditions and in sanitary practices. Because of rapid distribution, seizure is usually not possible on baked products except staple products such as cookies, crackers, cones, and similar items that have a material shelf life. Emphasis in regulatory work on perishable bakery items has been concentrated on firms near enough to State lines to conduct a local business on an interstate scale. Four injunctions and twenty-nine criminal prosecution actions were instituted against firms shipping filthy bakery products, usually with the added charge that these products had been prepared under insanitary conditions. In criminal cases terminated during the year penalties included two jail sentences of 6 months each, which were suspended during lengthy probation periods. Eight fines ranging from $1,000 to $2,000 and numerous smaller ones were imposed.

Clean-up campaigns on macaroni, spaghetti, and noodle plants have resulted in a reduction of seizures effected on filthy products produced under insanitary conditions from 46 in 1946 to 29 in 1947. There were, however, several extremely filthy plants requiring regulatory attention and 16 criminal prosecution actions were instituted. It was reported last year that one macaroni manufacturer received a 3-month jail sentence which was suspended on condition that he remedy insanitary plant conditions immediately and maintain the factory in a satisfactory condition. Reasonably good conditions prevailed immediately thereafter but in January 1947 inspection revealed insect infestation in the milling equipment and rodent infestation in the plant. The court revoked the suspension and ordered the defendant to begin serving his jail sentence. Another firm profited by a Federal inspection which disclosed rodent contamination of the flour it was using. When the next shipment of flour arrived, the macaroni company notified the station and an immediate inspection was made which resulted in the seizure of nearly 50,000 bags of flour contaminated with rodent urine which otherwise would have gone into macaroni products.

While conditions in candy plants, as a whole, continue to show improvement, this industry requires continuous coverage because sanitary conditions may change rapidly if supervision is relaxed or clean raw materials are difficult to obtain. Forty seizures of filthy candy were made in 1947 and 30 criminal prosecution cases were instituted.

Two permanent injunctions were granted by the courts, one against a chocolate concern after repeated factory inspections had shown heavy rodent infestation in the plant. When the firm was enjoined, it received many messages from dealers and others upbraiding it for operating an insanitary factory. The second injunction was made permanent 33 months after the court had dismissed the original complaint with a warning that the injunction would be made permanent if the firm was again found to be operating under insanitary conditions. Three reinspections revealed serious insanitary conditions, including direct contamination of the candy by rodent excreta, and this type of filth was found in candy shipped by the firm. Upon being informed of these conditions, the court granted the permanent injunction.

In three criminal actions fines of $1,000 or more were imposed against manufacturers of filthy candy. Another case terminated in a prison sentence. The defendant, who previously had been fined for shipping candy containing filth, was fined $5,000 in February 1947 for candy containing mineral oil and was given a 14-month jail sentence, suspended under a year's probation, as recorded earlier in this report.

In April he was found to be operating a deplorably filthy plant in which raw materials were being contaminated by rats, mice, and insects. He was ordered by the court to serve the 14 months and lost an appeal to the circuit court. After the end of the fiscal year, while the defendant was in prison, the district court reduced the sentence to 6 months.

Dairy Products and Eggs

The dairy program involves sanitation in over 6,500 plants that ship in interstate commerce and approximately 3½ million farms that supply milk to these plants, often with cream stations acting as collection intermediaries. Most dairy manufacturers are members of national trade associations whose efforts have materially aided Federal and local enforcement activities. There have been substantial improvements in plant sanitation as a result of combined regulatory and trade efforts. As was reported last year, the quality of the raw material used in dairy products continues to be the major problem. The most objectionable conditions now exist in those highly competitive areas where the conscientious manufacturers see the milk and cream they turn down going to less scrupulous operators. If there were no market for high-sediment milk, careless dairy farmers would be compelled to institute and maintain precautions essential to the production of clean milk.

The increases in seizures of filthy dairy products from 151 in 1946 to 194 in 1947 and in criminal prosecutions instituted from 31 to 76 do not reflect a retrogression, but rather are the result of concentrated regulatory attention on the firms that have been found to be persistent violators. During the past 15 years there has been a gradual and sustained improvement in the quality of cream for butter making; this was particularly notable in the past fiscal year. In cheese manufacture, also, a smaller amount of high-sediment milk is being used, which may be accredited in large measure to the long series of criminal actions and injunctions brought over the past several years.

One injunction, for example, was directed against a firm which operated five cheese factories. From the time the case was filed in 1945 until it was finally terminated in 1947 the firm constructed one entirely new factory and spent approximately $45,000 for equipment in the remaining branches to correct insanitary plant conditions. The management was replaced and quality control men were employed with full authority to correct objectionable conditions. Through a policy of rejecting dirty milk and sending field men out to the supplying farms to discuss sanitation, the milk supply has improved to the point that no dirty milk is now being received by these plants.

In a State in another section of the country three injunctions granted in 1946, against cheese manufacturers operating under deplorable conditions, not only corrected the insanitary practices of the enjoined plants but also improved other establishments in the vicinity where minor insanitary conditions had been noted in the past. Not a single shipment of butter or cheese from that State required seizure on filth charges in 1947.

Ten injunctions were requested in 1947 to prevent the shipment of filthy dairy products prepared under filthy conditions. The manager of one of the enjoined firms had remarked to inspectors who called unsatisfactory conditions, including the presence of innumerable flies, to his attention: "God made flies and I have no control over the matter."

Heavy penalties being imposed by the Federal courts in cheese-producing sections constitute another potent factor in sanitary improvement in the cheese industry. One judge, in imposing a maximum fine and a suspended jail sentence of 1 year, which the defendant would be required to serve if there were further complaint, stated "If that isn't warning to cheesemakers to clean up, I'll make the sentence even more stringent." This case brought the following editorial comment upon enforcement operations from a trade journal:

> There is only one way to combat their activity. That is to attempt a clean-up campaign within the factory and among patrons which may bring immunity from any charges of insanitation, either in use of raw materials, plant operation or production. You can best benefit yourself by instigating your own program and keeping it continually active.

Among the heavy fines imposed were one of $3,000, two of $2,000, and two of $1,000. In addition, a $1,500 fine was levied against a firm and its president for using unpasteurized milk in the making of cottage cheese, in violation of the official standard which requires pasteurization because of the danger of milk-borne diseases when unpasteurized milk is used. In two of the cases involving the heaviest fines the product shipped was process cheese manufactured from filthy natural cheeses. In developing each of those cases, it was necessary to trace insanitary plant conditions and the use of filthy milk back to about 30 primary cheese factories which had supplied the material.

Decomposition in frozen eggs, as in the past, was caused primarily by faulty handling after the eggs were broken out. Two injunctions were requested to prevent the shipment of frozen eggs known to contain appreciable percentages of decomposed material. One firm, having consented to a temporary injunction, had its decomposed material segregated from the sound, destroyed the unfit lots, and discontinued packing decomposed eggs. The second injunction request was denied by the court on the grounds that the firm had made only one previous shipment of decomposed eggs in interstate commerce. One of the twenty-two seizures of eggs involved the entire season's output of an operator who was working under very crude conditions and disregarding the basic requirements of a sound pack. With the exception of one action against shell eggs and one against dried, all of the 1947 seizures of unfit eggs were against the frozen article. Eight criminal prosecution cases were instituted charging the shipment of unfit processed eggs.

Fruits and Vegetables

The rapid growth of the quick-frozen food industry brought new problems in regulatory work on fruits and vegetables. The relatively few firms engaged in the freezing of fruits and vegetables before the war were usually so jealous of the quality reputation of their products that the raw materials were carefully selected and promptly processed. Now there are many newcomers in the industry who are inexperienced in adequate processing controls and in maintaining the fitness of raw materials. During the 1946 packing season there was so much emphasis on packing large stocks to profit from rising food costs that quality was often sacrificed. In addition, the freezing process has been employed by the fringe of the industry as a means of salvaging rotting materials. Large quantities of the 1947 pack still remain in freezers at the processing points; surveillance is being maintained of suspect lots with a view to appropriate action if interstate shipments are made.

The heaviest 1947 seizures of frozen fruits involved strawberries and strawberry puree. Some of the 19 seized shipments consisted of whole or sliced berries in consumer-sized cartons, but berries or puree in large cans for commercial use or further processing constituted the larger volume of the lots removed from the market. One plant inspection disclosed that sound berries were going into retail packages and the discards and excess berries were being used for the freezing of puree, wthout any sorting and with inadequate washing. Other decomposed frozen fruits seized included blackberries, raspberries, peaches, grapes, and pineapple. Three criminal prosecutions were filed.

The frozen vegetable seizures based on decomposition and insect infestation involved green beans, peas, asparagus, broccoli, and cauliflower. The plants handling some of the beans and peas had apparently contracted for more than their capacity and the glut in arrivals resulted in decomposition before the products could be properly processed. Next to decomposition, the presence of insects and larvae was the most frequent violation encountered in unfit frozen vegetables. One packer, upon being informed by an inspector that his frozen broccoli contained worms, made his own examination and voluntarily destroyed 10,000 pounds in the presence of the inspector.

In comparison with the size of the canned fruit pack, the quantity of unfit lots encountered was nominal. Of the 26 seizures effected, 12 involved canned blueberries and blackberries libeled because of the presence of insects and decomposition. Other unfit canned fruits seized because of decomposition were peaches, apricots, prunes, and one each of apples, cherries, and plums. Seizures of brined fruits involved unfit cherries and olives. Seven criminal actions were instituted against canners of unfit fruits, and two against packers of decomposed brined cherries.

Of 110 canned vegetable shipments seized for decomposition and infestation, 66 consisted of canned greens and field peas. The 1946 season showed a generally heavy insect infestation throughout the field pea canning area of the South and in many cases the canners failed to reject infested lots. Seizures of canned spinach, turnip, and mustard greens were fewer than those reported in 1946 when deplorable sanitary conditions in one canning area were noted. Basic corrections of objectionable conditions have been made by individual members of the industry, and the industry as a whole has corrected many serious faults by the installation of sanitary equipment, the purification of water supplies, and the adoption of the principle that raw material destined for food must be protected from human and animal contamination. There has been a marked improvement in the 1947 pack in comparison with the 1946 output from that section. A spinach packer in another area was fined $1,000 after it was pointed out to the judge that each mouthful of the firm's spinach contained 12 aphids.

Other seizures of unfit canned vegetables included tomatoes, beans, pimientos and peppers, and mushrooms, in the order named, and one or two each of hominy, mixed peas and carrots, sauerkraut, potatoes, and bean sprouts. A criminal case has been filed against the packer of the canned dried peas and carrots seized, and against the feed dealer who sold him the dried peas used in this product. These peas were weevil-infested and had originally been shipped to the feed dealer for poultry and pigeon feed; he sold them to the canner for human food and the canner used them despite their obviously unfit condition. Other criminal prosecution cases instituted against packers of unfit canned vegetables involved six packers of field peas, one of green beans, and one of mushrooms. A canner of filthy canned okra and field peas, who was operating under insanitary conditions, was enjoined from making further violative shipments.

Unfit tomato paste, puree, and catsup accounted for 66 seizure actions in 1947 in contrast to 112 in 1946. Eighteen criminal actions were instituted; two were terminated with fines of $2,504 and $1,500. The 1946 tomato crop in the Central States, the largest tomato-products manufacturing area, was smaller than normal but from the standpoint of fit raw materials was the best in many years. Only two firms in that area were operating under insanitary conditions requiring seizures from their output. Similar conditions were found in the western packing areas, but in the southern areas one section suffered heavy rains, causing cracking of the tomatoes with subsequent decomposition and insect contamination, and another tomato-growing section was seriously affected with blight. With reduced yield there was such competition for raw material in this region that some manufacturers went outside of their own territory to buy stock and accepted raw material that normally would have been rejected. True to tomato processing history, the unfit material went into comminuted products wherein its use could not be detected without scientific tests. Tomato juice prepared from unfit raw stock resulted in 19 seizures.

The only injunction requested in 1947 involving fruit was granted to restrain the shipment of cider and apple juice for making vinegar by a plant which was using unfit raw stock and operating under extremely insanitary conditions. Seven seizures were effected to remove unfit fruit juices from the market and one criminal action was filed.

Dried fruit seizures decreased from 80 in 1946 to 29 in 1947, partly as a result of more favorable growing conditions than in the earlier year when decomposition and insect infestation were acute, and partly as a result of the court decision which precluded seizures of terminally infested foods for part of the year. These products are particularly susceptible to storage contamination by insects. Ten criminal cases were brought against shippers of filthy dried fruits and three actions were terminated with fines of $1,500, $1,200, and $1,000.

Nuts and Nut Products

It is encouraging to record progress in the sanitary handling of nut meats. When the act of 1938 went into effect, it was necessary to make heavy seizures of shelled pecans and walnuts because of fecal pollution. The nuts were quite commonly picked out in the workers' homes where sanitary measures were crude. Today however, there is a concentration of picking operations in industrial plants. The high mechanization of the industry, as compared with conditions in 1939, has also been a favorable factor in reducing contamination. The industry is now sanitation-conscious and has been active in its own clean-up campaign. In one city, where the shelling in insanitary homes was particularly serious a few years ago but has now been transferred to the plants, the manufacturers provided their city health department with funds in 1947 to employ a full-time bacteriologist and sanitarian to assist the industry in its efforts to produce a clean product. No actions were necessary in that area because of fecal pollution, but seizures were effected because the nuts contained curculio larvae (which bear a marked resemblance to pecan pieces when they are dried), and because of the presence of rancid and otherwise decomposed nuts.

Contamination by rodents and insects was the charge in the three cases bringing the highest fines in criminal actions involving nuts. One firm had been fined $200 in February 1947 and its owner and his manager placed on probation for 3 years. Within 3 weeks the firm was again found operating under insanitary conditions, principally caused by rodents, and after several seizures the probation was revoked, the owner fined $1,000, and he and the manager placed on further probation for 3 years. A packer of rodent-eaten peanuts was fined $1,000, and another who was preparing salted peanuts in premises literally swarming with storage insects and overrun with rodents, was fined $800.

The handling of black walnut meats, discussed in the previous report, continues to require attention. Seizures were made of the output of three concerns and the firm responsible for a large percentage of the violative shipments in 1946 was prosecuted and fined.

Seizures of unfit peanut butter continued the downward curve noted in the 1946 report, with 3 shipments removed from the market in 1947, 8 in 1946, 17 in 1945, and 39 in 1944. In isolated cases operations were particularly objectionable, however, and three criminal actions were instituted. One operator was fined for grinding peanuts containing rodent excreta, a photograph of which was presented as an exhibit in court.

Total seizures of nuts on filth charges were 71, or approximately half the number effected in each of the 2 previous years. In those years a large portion of the seized peanuts were sound until they became contaminated by insects, rodents, and mold during terminal storage and, as has been previously noted, such seizures had to be discontinued in the 1947 fiscal year.

Sea Food

The quality of fresh and frozen fish was, in general, better than in the previous 2 years. Among the incidents that called for intensive regulatory attention on the part of both State and Federal inspectors were delays in unloading because of glutted freezers and a stevedores' strike, both causing large quantities of fish to decompose before they were unloaded. A strike of filleters also caught several loads of fish still on the boats and two complete loads had to be dumped because of spoilage. The owners and their clerical employees attempted to fillet a large volume of fish from other loads, but they could not handle it fast enough to prevent decomposition and some spoiled fish was frozen. When interstate shipments from these lots are made they are reported to destination points for sampling and the seizure of unfit lots.

The growing public acceptance of frozen fish has expanded production facilities, which are now frequently found in areas where fish was not formerly processed. It has increased, also, the varieties being frozen. Among the fish seized in 1947 on charges of decomposition were not only the types reported previously, like hake, haddock, cod, whiting, flounder, and rosefish, but also pompano, red snapper, salmon, rockfish, swordfish, ciscoes, yellow pike, chubs, and eels, which had been shipped from the far corners of the country.

The 34 seizures of unfit canned fish involved 30 lots of small herring, usually canned as sardines, which were afflicted by a disease that reached epidemic proportions along the coast off Maine. When the packing season opened in March there were no schools of fish available which did not contain a very high percentage of diseased fish. Efforts to sort were unsuccessful. The canneries discontinued operations except for small lots of fish which could be trucked from nonaffected areas. They reopened late in June when the prevalence of diseased fish was somewhat reduced and by efforts of the industry, with the assistance of State officials, it was found possible to eliminate the diseased fish by careful sorting and culling. One of the principal regulatory problems growing out of this epidemic was the surveillance of fish rejected by the canneries, to prevent diversion to the market as fresh fish. State and local authorities were of inestimable assistance in this work, in many areas assuming the full responsibility.

Among the other types of sea food seized were 42 shipments of fresh and canned crab meat. Seven involved fresh crab meat that had become polluted with bacteria denoting fecal contamination. These constituted a potential danger to health. The seized lots had in some cases been packed in hermetically sealed cans under grossly insanitary conditions and in others had become decomposed during inexpeditious handling. A tremendous increase in domestically canned crab meat developed during the period when Japanese canned crab meat was not available. Many of the larger packers purchased picked meat from widely scattered picking sheds, over which they exercised no sanitary control. To this were added long hauls with improper icing and the practice, until recently suppressed by State authorities, of catching crabs in trawls in which many died before they reached the canneries. Many packers have abandoned the canning of crab meat.

Other seizure actions on charges of decomposition involved eight shipments of fresh and one each of canned and dried shrimp, four of frozen lobster tails, six of canned oysters, and six of dried, smoked, or pickled fish.

Criminal actions instituted against packers and shippers of filthy sea food included eight against operators of filthy crab packing plants, two against shippers of unfit frozen fish fillets, and one each against packers of decomposed frozen shrimp, of unfit canned codfish cakes, of decomposed lobster tails, and of decomposed smoked salmon. Among the penalties levied in terminated cases were one of $1,025 imposed upon a packer who operated a filthy crab-meat plant and shipped a contaminated product, and one of $1,000 assessed against a packer who was canning codfish cakes from fish so putrid that the odor permeated the entire plant at the time of a factory inspection.

A fish dealer who attempted to smuggle in a large shipment of whitefish after it had been denied entry because of parasitic infestation was fined $2,500 and placed on probation for 3 years. Traffic in parasitized Canadian fish continues to demand constant attention, but the situation appears to be improving as a result of Canadian Dominion and Provincial Government studies and activities to reduce parasites in whitefish and tullibees and to eliminate infested lots from the channels of trade. Seventy-four import lots were rejected in 1947.

Investigations incident to seizures of decomposed frozen African lobster tails indicated that the lots had been shipped into the United States from Canada after they had previously been denied entry from South Africa. A Federal grand jury returned an eight-count indictment against the Canadian shipper and he was placed under arrest when he visited the country. Bail was set at $1,500 pending trial in the fall of 1947.

Other Filthy and Decomposed Foods

No regulatory problem involving filth and decomposition in poultry was encountered in the eastern broiler area which has maintained the improved conditions achieved during the war period. Activities were confined to isolated lots which became decomposed under unusual circumstances, such as 7 tons seized because of spoilage resulting from standing unrefrigerated over a week end on a shipper's truck. In the western area an inspector found a plant hastily dressing turkeys from a flock in which there had been considerable illness and mortality. Seizure was effected on two shipments from this plant because of disease. Other seizures of unfit poultry resulted from improper handling and one was effected on a shipment that consisted largely of cull poultry. Three seizures, resulting from consumer complaints, involved chicken and turkey sandwich spreads which contained pinfeathers and, in some cases, pebbles, apparently from the craw of the fowl. Meat seizures involved rancid salt pork, for use in preparing pork and beans, and beef which became unfit after it left the packing house.

Spices and condimental seeds require constant protection from rodents and insects from the time they are grown in the fields until they reach the consumer's table. In the previous fiscal year, mold was also a problem because of excessive rains in some growing areas. In

1947, growing conditions were favorable and some improvement was noted in processing plants, particularly in the chili-pepper factories. More attention to suitable storage had been forced upon warehouse operators in 1945 and 1946 by seizures of contaminated lots but this type of enforcement had to be curtailed in the fiscal year 1947. Seizures of unfit prepared condiments included vinegar, pickles, sauces, french dressing, and salad dressing. Five criminal prosecution actions were entered against shippers of unfit spices and condiments. One manufacturer of spices was fined $2,000 on combined filth and economic charges.

Beverages and beverage materials seized on filth charges included beer, fruit flavors, and brewers materials, including a consignment of hops containing 9,000 aphids per 10-gram sample (a small handful). Three seizures of fountain sirups were made because of fermentation and the use of improperly cleaned second-hand containers formerly used for varnish, kerosene, and other nonfood items. Improper cleaning of used bottles was responsible, also, for a fine of $1,000 imposed upon a manufacturer who had shipped to Alaska carbonated beverages containing cigarette butts, mold, sand, glass fragments, and other debris. A criminal action was filed against a coffee concern for the preparation of roasted and ground coffee from green coffee containing rodent pellets.

The disposition of ships stores, particularly those of the many ships being decommissioned by the Maritime Commission, continued to offer certain problems. In most cases the stores consisted of numerous lots, usually in small quantities, of material which had become unfit for human consumption principally because of the development of infestation. Arrangements made at the various decommissioning ports were designed to keep unfit materials from sale and, in the main, these arrangements resulted in the destruction or diversion into animal feed channels of unfit ships stores. In the winding up of operations of such proportions, however, personnel changes at some points were inevitable, and procedural agreements made with the Food and Drug Administration were not always adhered to. Unfortunately, a few instances resulted in which unfit food products were sold without proper denaturing. In other cases, surplus goods which had been in legal condition at time of sale later became contaminated or otherwise unfit while the purchasers were endeavoring to dispose of the material. The surveillance maintained with the cooperation of various State and local enforcement officials was such, however, that these unfit materials were quickly rounded up and removed from the market.

On May 1, 1947, the disposition of surplus foods of all types was turned over to the War Assets Administration by executive order. That agency immediately made arrangements with the Food and Drug Administration whereby no surplus foods would be disposed of until it had been established that they were in accord with the requirements of the Food, Drug, and Cosmetic Act. It is anticipated that there will be no further difficulties in connection with the disposal of surplus food, including ships stores from decommissioned vessels.

Import Detentions

The first wave of storage-deteriorated and infested foods which began to arrive at United States ports when shipping was resumed after the war appears to be diminishing, but another wave is expected from oriental and South Pacific areas when trade is resumed from certain regions for the first time since the outbreak of the war. Detentions of unfit foods increased by about 15 percent in 1947 over the quantities refused entry in 1946. The greater variety of products being offered for entry and shipments from new sources have increased the problems of import control.

Import problems have been further complicated by the increase in air traffic, with airports far removed from ship docks and warehouses where most of the import work is done. Many of the items shipped by air express are highly perishable and require special handling.

Another development is the use of the Foreign Trade Zone to segregate and manipulate incoming shipments. In many instances, withdrawals from the zone are made piece-meal, each constituting an entry, whereas regular importations are usually handled as a single entry for the entire shipment.

Because many of the foreign shippers were not aware that a law containing new requirements for foods, drugs, and cosmetics went into effect about the time war broke out in Europe, and in view of the obvious misunderstandings of its provisions by many who had heard of the new law, the Food and Drug Administration issued a circular in 1947 entitled "Import Requirements of the United States Food, Drug, and Cosmetic Act." Published to assist foreign exporters who desired to establish a legitimate trade with this country to meet the requirements imposed alike upon domestic and foreign products, this circular was distributed through United States Consular offices to all known producers and shippers of foods, drugs, and cosmetics destined for the United States. Sanitation and protection of products from filth contamination are stressed throughout the publication.

Not all of the contamination of foods which were denied entry had occurred at the point of origin. Strikes in the fall of 1946 of shipping personnel and truckers who handled dock withdrawals created indescribable congestion in the ports. At one time, 320 loaded vessels were tied up or anchored awaiting strike settlements before cargoes, many consisting of perishable holiday food items, could be discharged. With the settlement of the various strikes, the "stopper was pulled" and an unprecedented quantity of merchandise required examination before it could be released to frantic importers. This necessitated the redeployment of 21 chemists who worked shoulder-to-shoulder in the Administration's New York laboratories to keep up with the examination of figs alone. Fig detentions because of worminess increased to 43 percent of the poundage examined over the previous year's refusals of 27 percent.

Only a few of the 1947 import highlights are given in this report, but they indicate the foods requiring substantial enforcement coverage and the types of contamination that were responsible for detentions. Leading the list in volume was manioc meal, or unrefined ground cassava root from Brazil, which has been used as a substitute for cereals in the production of fermented beverages. Seventy-five million pounds, or 37 percent of the poundage examined, were detained on account of insect infestation.

Next in volume were cocoa beans, with 28.35 million pounds, or 9.6 percent, detained. While the percentage denied entry differs little from that of 1946, the prevailing filth was of a far more repulsive type. In 1946, the principal causes for detention were mold and water damage, and only late in the fiscal year was goat manure noted in Nigerian cocoa. In 1947, the presence of goat manure and excreta from other animals was found in samples representing over 26 million pounds offered for entry from West Africa, St. Domingo, and New Hebrides. This contamination by animal excreta probably occurred while the beans were being dried.

The total poundage of spices examined was over 60 percent greater than in 1946 but detentions decreased from 35 to 28 percent. A total of over 21 million pounds was detained. Significant improvement was noted in the condition of some spices, particularly caraway and poppy seeds. Conversely, black pepper detentions were heavy because of excessive siftings. With high prices and an acute shortage in the market, the incentive was strong to substitute dirt for pepper berries.

Approximately 3½ million pounds of coffee beans unfit because of worminess or mold and nearly 1 million pounds of coffee sweepings were detained. Some of the lots of unfit beans were later permitted entry when they had been satisfactorily sorted to remove the objectionable material. The sweepings, however, had been contaminated by shoe scrapings, cigarette butts, and other filth and extraneous material found in the holds of ships and on the docks, and exportation or destruction was required.

Other detentions exceeding a million pounds included filthy, decomposed, or otherwise unfit nuts, with 11 percent of examined pounds detained in comparison with 4.6 in 1946; and sweetened chocolate largely in 10-pound bars for further manufacture, with 15.6 percent detained on account of mold and worminess. Over ⅔ million pounds of dates were detained on account of worminess, but the percentage was 1.2 in comparison with 3 in 1946 and 9 in 1945. Honey containing insect and rodent filth led to detentions of over 10 percent of the honey importations and involved nearly 600,000 pounds. While the volume detained was less than 45,000 pounds, the economic situation leading to the detention of Norwegian sardines is significant of the complex problems arising in import control work. Investigation into the cause of decomposition disclosed that the aluminum cans used for packaging because of the scarcity of tin plate were so fragile that breaks occurred at scored points. This situation was largely corrected by conferences with Norwegian experts.

Food Violations Involving Economic Cheats

Unfortunately for the welfare of the consuming public, the incentive to perpetrate economic cheats is strongest when food is in short supply and prices are high. While such violations are motivated by a desire to profit illegally at the expense of the purchaser, these practices frequently damage more than his pocketbook. High prices are a severe strain on the food budgets of a large portion of the population. When food money is spent for water, as is the case when butter is below the legal fat content or fruit beverages are deficient in fruit, the victims are deprived of essential nutritive elements. When they pay prevailing prices for genuine foods and receive imitations or substandard products which they could have purchased at much lower prices under honest labeling, the food budget again suffers, even though the misbranded product is wholesome. There is an even more damaging effect on public health when the adulterant is a deleterious substance such as mineral oil, more fully discussed in the health section.

These violations are not condoned by legitimate business, which finds in them an abortive attempt to undermine honest merchandise. The worst offenders are often fly-by-night concerns using typical bootleg tactics to distribute violative merchandise. Since this fringe of deliberate violators consists of opportunists who turn to other lucrative fields when enforcement officers bear down on one type of abuse, their activities probably cannot be completely eliminated. Their attempts are, however, kept from becoming big-scale operations which would demoralize both the consumer and the affected industry.

Debased and Misbranded Foods

Water, the cheapest and most available of all food adulterants, was found in excessive quantities in a wide variety of foods seized. The use of illegal quantities of water in foods for which official standards have been promulgated is discussed under the caption Violations of Food Standards. No standards have been issued for frozen products, however, and some packers have found selling water at frozen fruit prices very profitable. The packing of sliced strawberries in excessive quantities of sugar and water sirup led to citations of the packers involved and warnings that this practice is a violation of the section of the Food, Drug, and Cosmetic Act defining a food as adulterated "if any substance has been added thereto or mixed or packed therewith so as to increase its bulk or weight, or reduce its quality or strength . . . ." Among the 12 frozen fruits seized on this charge were large quantities of the output of a manufacturer whose 1-pound packages of frozen berries and cherries contained 6 or 7 ounces of water and sugar. Four criminal actions were brought against frozen fruit packers and one against an asparagus packer for incorporation of excess water in their products. Frozen shrimp containing excess water was seized also. Other frozen foods removed from the market because their quality had been reduced included five consignments of spinach with sizable proportions of grass and weeds.

The addition of water and artificial flavor and color to fruit beverages is particularly serious in view of nutritional values supplied by true fruit juices. The Administration has found that such adulteration is deceptive, regardless of the labeling employed, because the artificial color and other substances added to the juice and water make it appear to contain much more fruit juice than is actually present. A pending seizure contest based on a mixture of this type will bring a judicial interpretation of the Government's contention that such beverages are in violation of the section of the act which deems food to be adulterated if it is mixed with artificial color or other ingredients to make it appear better or of greater value than it is.

In addition to several seizures of deceptive fruit-type beverages in 1947, four criminal prosecution actions based on watered grape juice and spurious grape juice concentrates were terminated with fines ranging from $500 to $3,200. The highest fine was levied against two owners of a firm that was shipping as pure Concord grape juice a product containing equal parts of water and grape juice and 20 to 30 percent phosphates and sugar. One of the other fines was imposed upon a shipper of spurious grape juice punch labeled as a genuine product. This man was victimizing war veterans by selling them the "exclusive formula" for preparing the concentrate but failing to point out that the products made therefrom would be illegal unless they were labeled as imitations.

Excess water was responsible for the seizure of several shipments of crab meat and canned clams packed in high proportions of brine, and the criminal prosecution of a canned-clam shipper. A packer of fresh oysters was fined for deliberately adding water to the packing jars before he put in the oysters. Subsequently, standards of identity for fresh oysters were promulgated to limit their water content.

In addition to excess water in sea foods, several other economic violations required seizure of domestic shipments. An unusual violation was encountered involving the shipment of canned salmon of the species known as "red" or "sockeye" which had been labeled with a spurious counterfeit of the label of a well-known brand of Columbia River chinook salmon, thereby causing unsuspecting retailers and consumers to pay the premium price of chinook salmon. Several seizures put a stop to this deception. Seizures were made of horse mackerel labeled mackerel, and crayfish tails labeled lobster. Light-colored dried shrimp were artificially colored pink. Seizures of frozen "crab cocktail" and "oyster cocktail' consisting mostly of tomato sauce discouraged this form of deception. Detentions of misleading imported sea foods involved sardines with a layer of anchovies on top, and bonita labeled as tuna, both leading the purchaser to think he would receive a more expensive article.

Spurious substitutes represented as black pepper and having very little flavoring value flooded the market during the shortage of genuine pepper. These products were usually in small retail packages. Forty-one seizures were effected during the year of products containing such adulterants as salt, starch, ground soybeans, cottonseed, wheat, and buckwheat, and the ground hulls of these grains. Yellow mustard seed was found in so-called white pepper. Nine criminal actions were instituted against fake pepper shippers. The reappearance on the market in the spring of 1947 of supplies of genuine pepper terminated the need for intensive regulatory activities in this field. Other debased spices and condiments removed from the market included ground nutmeg with star anise seed substituted, onion and garlic flavorings containing asafoetida, iodized salt deficient in potassium iodide, and vinegar consisting of distilled vinegar or dilute acetic acid artificially colored and flavored. Two concerns were fined for shipments of fake wine vinegar.

Debased food seizures included 15 lots of french dressing compounded without oil. A contest of one of these seizures was tried in Federal court and the jury supported the Government's contention that oil is a basic ingredient of french dressing. So-called olive oils seized consisted of cottonseed, soybean, corn, peanut, and other oils. One mixture labeled "80% peanut oil 20% olive oil" was pure soybean oil. A fine of $1,000 was imposed in a criminal action against a shipper of alleged olive oil containing 90 percent cottonseed oil.

With industrial sugar rationing continuing until after the end of the fiscal year, there was a temptation to reduce the amount of sugar used, which reached its extreme in a consignment of candy with the sweetening ingredient entirely omitted. Saccharin was substituted for sugar in a few sirups and concentrates and one shipment of salad dressing seized, and a fine of $500 was imposed for its use in a fruit-flavored sirup and in pickled herring. Two seizures were made of corn sirup labeled as dextrose, and three of sugar sirup with molasses or refiners sirup substituted for the cane they purported to contain. Sugar was not in too short supply, however, to preclude its use in products labeled as much scarcer maple sirup. Fourteen lots of maple sirup were seized because they were adulterated with cane sirup, corn sirup, or molasses. Jail sentences, of 3 months in one case and 30 days in two others, were imposed upon shippers of artificially flavored sugar sirup labeled "Vermont Maple Sirup—Pure." One of the 30-day sentences was suspended and a probation period of 2 years set. Following the serving of the other two sentences, the defendants were placed on probation for 3 years.

The principal violation encountered in confectionery was misbranding to indicate more valuable ingredients than those actually contained. A seized item labeled "chocolate and pecans" contained neither. Another was without the pecans its name promised and a chocolate and almond bar consisted of peanut butter, molasses brittle, and two almonds. Corn flakes were substituted for coconut in two shipments seized. A chocolate beverage mix was seized because it contained no chocolate, and action was taken against a fudge mix because it required the addition of butter or other shortening to produce fudge.

The list of debased foods seized also includes grated cheese diluted with skim milk, cheese crackers containing inconsequential amounts of cheese, mushroom mixtures with mushrooms barely detectable, chicken mixtures likewise deficient in the valuable ingredient, and cranberry-apricot mix made from exhausted cranberry pomace and dried apricots. The list could go on, but will end with the most unusual substitution of the year—a 5½-inch cold chisel in a fruit cake. There was no evidence that the recipient was or had been in jail.

Purchasers of stock feed depend upon the labeled protein content of the product in their feeding schedules and the price of feed is usually governed by its protein content. Nine low-protein feeds were seized and 13 criminal prosecution actions based on this violation were instituted. An additional criminal action involved a feed below the labeled mineral content. A permanent injunction was granted to restrain one dealer from further shipments of mixed feeds deficient in protein and fat. Terminated criminal cases based on feeds below the labeled nutritive value included three in which fines of $4,000, $2,700, and $1,500 were assessed. The $4,000 fine was levied for the substitution of approximately 70 percent of rice hulls for rice bran.

Violations of Food Standards

The law specifically provides for legal standards for certain foods through a statutory definition of butter and authorization of the establishment by the Administrator of definitions and standards for foods when "such action will promote honesty and fair dealing in the interest of consumers." The foods thus far selected for standards are staples in the American diet. Enforcement of the standards is important for the protection of the consumer, since standards of identity are, in simple terms, the specifications under which he purchases such foods.

The Federal courts, in ruling upon seizures of foods, determine what disposition may be made of violative goods. They permit canned foods seized because of defects that affect their quality but not their wholesomeness to be relabeled "substandard" to bring them into conformity with the law. Butter must contain 80 percent milk fat; it may not be relabeled to show a smaller percentage, but it may be rechurned to remove the excess moisture, which will bring it up to the required fat content. The Food and Drug Administration examines foods after they have been relabeled or reworked, to determine whether the violation has been corrected; if so, they are released for redistribution. If the seized lot is small and the owner does not elect to furnish a bond that he will bring the food into conformity with the law, the court may direct its distribution to charitable institutions or its sale by the marshal under precautions that will prevent its return to commerce under illegal labeling. In any of these procedures, good food is not permanently removed from consumer channels.

Butter below the required 80 percent fat accounts for the greatest number of seizures each year for violation of food standards. The percentage of deficiency is less in most cases than was found a few years ago. It is very unusual to find the fat content below 78 percent and the proportion of samples below 79 percent is small in comparison with the total output. With butter prices high many firms are inclined to leave too little margin for error. In 1947, seizures of low-fat butter totaled 87, in contrast to 65 in 1946 and 118 in 1945. Criminal prosecutions instituted for these years were 19, 16, and 25, respectively. The highest fine assessed was $3,000 for a single shipment. This fine was levied against a firm that resumed the shipment of low-fat butter immediately after it had been fined $1,000 in the same court for the same offense in 1946.

Low fat was charged also in seizures of five shipments of cheese. In contrast with butter production, the cheese manufacturers do not usually attempt to cut down to the absolute minimum fat required, because the milk-fat content of cheese cannot be controlled closely.

A sixth seizure of substandard cheese was based, as previously stated, on the failure to use pasteurized milk, which the standard requires in the making of cottage cheese. A fine of $1,500 and costs was imposed in a criminal action brought against the shippers of this violative cottage cheese.

Macaroni and noodles in violation of the standards of identity prescribed for them accounted for four seizures. A fine of $3,200 was imposed upon a corporation and two of its officers for shipments of noodles deficient in egg and artificially colored to make them look rich in eggs. The defendants had at first pleaded not guilty but when their attorney saw cloths dyed with the yellow coal-tar color extracted from the noodles the plea was changed to one of guilty. Four seizures of chocolate and cocoa were also listed among the substandard foods removed from the market.

The highest number of actions against substandard canned foods again involved canned peas which were hard and overmature. The decrease from 93 in 1946 to 78 in 1947 may be accounted for at least in part by the serious attitude of the courts toward a product that damages the good reputation of an area which specializes on the growing and canning of peas. In two Federal courts covering this territory, 12 criminal prosecutions were terminated with fines averaging $800; the four highest ranged from $1,000 to $2,800.

Canned tomatoes were second in number of substandard canned foods seized for failure to bear the substandard legend. The 54 actions were based on low drained weight or excess peel. Several seizures were made of canned asparagus so tough it was inedible. Failure to comply with standards of identity for canned vegetables because processing by heat was not adequate to prevent spoilage was listed with insanitary conditions of the plant as violations responsible for an injunction granted in October 1946. The concern was packing canned sweet potatoes, okra, and greens.

Peaches containing excess peel, deficient in labeled sweetening ingredient, or slack filled were highest in number of canned fruits seized. Next were shipments of canned fruit cocktail containing too small a proportion of pineapple or low in drained weight. Apricots misbranded as to sirup strength were third.

Twenty-four seizures were made of jams, jellies, and preserves that contained less than the 45 percent of fruit called for in the standard. Two criminal actions were instituted, one resulting in a $600 fine. Seizures and a criminal prosecution action were filed when a manufacturer was found to be substituting approximately 50 percent dried pear chops in his apple butter. This substitution resulted in a large profit because of the relatively cheap price of pear chops in a year when apple chops were scarce and costly. Two other apple butter manufacturers were prosecuted for products with too high a water content. Similar charges were brought in 11 seizures and 3 criminal actions based on substandard tomato paste and puree.

Short Measure and Deceptive Containers

Short weight or volume was alleged in 123 seizure actions in 1947, which is slightly higher than the record of the previous year. While regulatory time required for other types of violations does not permit of intensive weight surveys, attention is directed to net weight practices in the course of those factory inspections and sample examinations made primarily to check for health and hygienic violations. Extreme carelessness rather than deliberate cheating was usually responsible for short measure, but occasional instances were found wherein the manufacturer profited illegally by consistent shortages. For example, one firm was found by State authorities to be bottling its 12-ounce beer 1 ounce short by deliberately setting the filling machine for this purpose, with a resultant $50,000 profit during a 4-month period. This profit was substantially reduced by State seizures of the stocks on hand and Federal seizures of interstate shipments. A criminal action has been instituted.

The largest number of seizures for short weight or measure involved canned vegetables, with beverages, confectionery, spices and condiments, oils and fats, sirups and honey, jellies and preserves, and canned fish and shellfish following in the order named. Butter dropped from first place in 1946 to ninth in 1947. The remaining seizures were scattered through most of the food groups. In 33 criminal actions short weight was charged. The highest fine assessed was $800 imposed upon a baking corporation with a national distribution. The fruit cakes involved were from 3 to 7 percent short of their labeled weights.

Seizures of deceptively packaged foods included packages of candy drops containing only 17 pieces where 23 could easily be placed in each container; tea packages only 77 percent filled, packages of pudding bases only 54 percent full, gelatin desert powders half full, and spaghetti occupying less than half the volume of the package. A shipment of candy was found to have a cardboard liner three-fourths inch wide outside of each row of wrapped caramels and a ½-inch divider inserted between the rows; removal of liners and dividers permitted the packing of three rows instead of the two contained in the seized package. Total food seizures in which deceptive packaging was charged were 31 and 4 criminal prosecution actions were instituted, in comparison with 23 seizures and no criminal actions in 1946.

An appellate court decision upholding a district court's dismissal of a seizure in which the Government alleged slack filling of candy is discussed under Court Interpretations.

Sea-Food Inspection

Despite continued disturbances to the market as an aftermath of the war and a fisherman's strike which prevented packing in one of the principal shrimp areas during most of the packing season, the number of cases of shrimp packed under continuous inspection of the Food and Drug Administration increased materially over the pack of the previous season. Approximately 260,000 cases of shrimp were packed by 21 plants in 1947, in comparison with 161,228 cases packed by 27 plants in 1946. Eight plants canned oysters under Food and Drug Administration inspection in the fourth year this service was made available to oyster packers whose equipment and methods of handling the product qualify them for operation under the Sea-Food Inspection Service. One plant canned oysters only, while the other seven also packed shrimp. The oyster pack was approximately 34,000 cases, which is a decrease of about 4,800 cases from the 1946 inspected pack.

The shrimp and oysters canned under Federal inspection, after voluntary application by the packers and their acceptance on the basis of competency to meet the rigid sanitary and other controls essential to the packing of an acceptable product, are labeled "Production supervised by the U. S. Food and Drug Administration." The cost per can for this inspection in 1947 was approximately three-quarters of 1 cent, which was paid by the packers except for $40,000 appropriated by the Congress for this service.

Actions on Drugs

Dangerous and Adulterated Drugs

"Anything can happen from time to time, even in the best of firms," a drug manufacturer pleaded before a Federal judge about to impose a penalty for labeling one drug product with the name of another. The judge replied that according to this the firm might easily have labeled potassium cyanide as bicarbonate of soda. It is essential that the strictest type of control be maintained by pharmaceutical plants at every step in their operations, and this is recognized by most manufacturers. Some firms, however, attempt to economize by eliminating laboratory examination of finished products entirely and relying upon checking production against amounts used. When mix-ups occur under these circumstances they are revealed only after injuries or unfavorable reactions occur.

Too many reports of incidents of this type were received during the year, some from manufacturers, others from physicians and consumers. Routine regulatory operations of the Food and Drug Administration uncovered other mix-ups and faulty controls before the products reached the market. In most cases manufacturers took prompt and effective steps to recall all outstanding lots, but in some cases the recall was superficial both in coverage and because of failure to disclose to consignees the dangerous nature of the product until they were required to do so by the Food and Drug Administration.

As soon as the Administration learns that a potentially injurious product has been distributed, its efforts to retrieve the suspect batches are abated only when every unit is accounted for. As far as possible this is accomplished through instigating adequate recalls by the shippers and checking upon their effectiveness and the safe disposition of the returned goods. When necessary, the goods are removed from consumer channels by individual visits to wholesale houses, retail drug stores, hospitals, and other consignees, with the very real assistance of State and local enforcement agencies whose efforts have been an important factor in the success of every major round-up. After the dangerous drugs have been accounted for, the firm involved is cited to a hearing with a view to criminal prosecution if the error was one which could have been avoided by good manufacturing practice or could have been corrected at an earlier stage.

A Nation-wide investigation followed a physician's report that tablets sold for the treatment of obesity were causing blurring of vision indicative of atropine poisoning. Investigation disclosed as much as 11 times the declared amount of atropine sulfate in some tablets. The manufacturer and distributor had learned of the poisoning symptoms before the Food and Drug Administration received the report, but with a callous disregard for the danger had made every effort to cover up the injuries and the distribution of the 60,000 tablets containing the overdosage.

Another physician's complaint disclosed an error in compounding a manufacturing formula which resulted in a drug containing six times the labeled amount of phenobarbital. When this firm received complaints, it made an immediate but superficial attempt to recall the tablets from physicians on its shipping lists, who were asked to return the drug but not warned of the overdosage. While many responded by returning stocks on hand, they did not attempt to retrieve the tablets from patients. The firm did not notify the Food and Drug Administration of the incident, and when it was discovered months later from other sources two physicians were located who still had the tablets in their possession.

Another round-up was necessary when a firm made an error in converting the formula to a batch of a different size and used 6 pounds of pilocarpine hydrochloride instead of 6 ounces. The excessive pilocarpine content was discovered when patients suffered nausea, cyanosis, profuse perspiration, salivation, and collapse. The firm eventually notified the Food and Drug Administration, and directed its entire sales staff to discontine all other activities and retrieve the distributed tablets.

The last annual report mentioned the institution of a criminal prosecution action against a manufacturer who had labeled an oil solution of estrogens as vitamin B complex solution suitable for intravenous injection. This prosecution was terminated with a fine of $2,000 for the mix-up, coupled with a $1,500 fine for other violative drugs indicating faulty laboratory controls. Soon after this case was tried in an eastern Federal court, the identical type of mix-up was discovered by an inspector during a routine factory inspection of a drug concern operating in the Middle West, except that the estrogen in oil was packaged in ampuls for injection. The vitamin B complex label stated that the solution was for intramuscular or intravenous injection, the latter of which almost certainly would have brought dire, possibly fatal, results. Although the firm had received complaints which led to the discovery of the label switch, it made no attempt to warn physicians of its dangerous nature until the Government's investigation.

Another recall program, and a series of tragic fatalities which received more public attention than any other during the year, resulted from faulty administration rather than from errors in compounding. The product, a suppository containing the bismuth salt of heptadiene carboxylic acid, was used by physicians in the treatment of throat and mouth infections, particularly in preoperative and postoperative care in tonsillectomy. Although there was no evidence to incriminate the drug when used according to directions and in each of the 20 fatalities occuring among infants and young children the dosage had greatly exceeded that recommended in the labeling, the manufacturer recalled all stocks from the channels of trade at the instigation of the Food and Drug Administration. The assistance of cooperating city and State health officials was enlisted to expedite the recall program and to check on its effectiveness. There is no record of any fatalities occurring after the manufacturer began his recall efforts.

One incident still remains unsolved, but the manufacturer reported it promptly and has made every effort to prevent injuries after its discovery. Officials of a large pharmaceutical factory notified the Administration that 1.19 pounds of strychnine sulfate, which had been weighed out for the preparation of a drug, had disappeared. The firm discontinued all manufacturing and examined samples from every lot in preparation throughout the plant in an effort to locate the missing drug. Federal inspectors made an intensive investigation and collected many samples for examination in the Government's laboratories. No information leading to the location of this lethal drug has yet been uncovered.

Seizures of drugs for violation of United States Pharmacopoeia or National Formulary standards decreased from 36 in 1946 to 25 in 1947. Injection drugs containing undissolved particles and surgical dressings failing to meet U. S. P. sterility requirements both continued the decrease recorded in 1946. The greatest number of actions involved U. S. P. mineral oil sold under fanciful names to establishments that intended to use the article for food purposes. The 32 drug products failing to meet their own specifications, as professed on the labels, included 12 nonofficial drugs, 5 proprietary remedies, 6 estrogenic preparations, 2 lots of uncertified penicillin, and 7 veterinary remedies. Criminal prosecution actions were instituted in 7 cases charging violation of official compendia standards and 21 involving deficiencies in professed ingredients.

Fines in terminated cases included one of $3,000 imposed against a firm for shipping nonsterile injection drugs, an article containing an unpermitted preservative, and a vitamin product deficient in potency. The next highest fine, $2,750, was assessed for shipments of injection water containing undissolved material, sodium morrhuate deficient in active principle, and a misbranded estrogenic substance. Several other cases based on the labeling of estradiol as natural hormone substances were terminated with fines ranging from $300 to $500. A $1,200 fine was levied on a small drug firm for shipping an injurious preparation for application in the ears and an adulterated and misbranded vitamin product; the owner promised to discontinue the business immediately and never again to engage in the marketing of any drugs or vitamins. A defendant fined $1,100 for rubbing alcohol and a mouth-wash deficient in the labeled alcohol content explained to the court that the stick with a mark on it used as a gauge in measuring the alcohol must have become inverted by mistake. Fines of $1,100, $1,000, and $350 were imposed upon three firms which operated without laboratory control of manufactured drugs and made numerous shipments of drugs that were grossly deficient in active ingredients. For a material deficiency in digitalis tablets a large manufacturer received a fine of $500 and a serious lecture on the importance of accurate potency in drugs used for such a serious condition as heart trouble.

Two fines were levied early in the fiscal year in abortifacient paste cases continued from previous years. One was based on a shipment, while an injunction trial was pending, of an abortifacient which caused the death of a woman the following year. The court fined the corporation $1,000 and placed its president on probation for 2 years. The second fine, for a like amount, was imposed upon a pharmacist who refused to furnish information about the receipt in interstate commerce and the subsequent sale of a dangerous drug intended to produce abortion. The Administration knows of no attempts to continue the manufacture of these dangerous drugs, but sporadic lots are still being marketed through undercover distribution which will require continued surveillance.

Violative Sales of Prescription Drugs

Fines ranging from $200 to $1,800 were imposed in cases charging over-the-counter sales (i. e., sales to laymen without prescription) of drugs limited to prescription sales only, by the labeling under which they were shipped. After these penalties were assessed the Fifth Circuit Court of Appeals reversed a pertinent decision of the District Court for the Middle District of Georgia. The lower court had supported the Government's charges in a criminal action based on sales by a pharmacist, without prescription and without warning labels, of sulfathiazole tablets that were labeled in full compliance with the law when he received them from the manufacturer. The lower court's decision was discussed in the 1946 report. The circuit court decision involved the difficult problem of where Federal jurisdiction ends. The Food and Drug Administration has instituted numerous criminal actions in the belief that Congress intended to extend the protective features of the law to the ultimate consumer. The Supreme Court has agreed to review the case; thus a final decision will be rendered on the Federal Government's authority under the present statute to exercise such control activities. The outcome of this case is of vast importance because it may chart the course of Congress in its consideration of the pending amendment of the seizure section. It is of signal importance, also, to the large majority of the retail druggists of the country who have refrained from selling prescription drugs promiscuously because they are law-abiding citizens and members of a profession with high ethical standards.

A fine of $2,250 was levied on a mail-order house for violative shipments of prescription items to lay consignees. While this is not an over-the-counter case in the usual sense, it is the equivalent because no investigation was made by the shipper as to whether purchasers were in the drug business or were ordering the drugs legitimately and would use them under a physician's directions, or whether items thus shipped might endanger the health of self-prescribing and self-administering consignees.

Several seizures were made of first-aid kits containing sulfanilamide crystals, sulfadiazine tablets labeled "Wound Tablets," amphetamine tablets, or other dangerous drugs prohibited by law from distribution to the general public without physicians' prescriptions. These kits had been prepared by contractors for the use of the armed services and remained as surplus because contracts were cancelled when hostilities ceased. The labeling of the prescription drug items in these kits did not conform to the requirements of the act since they were intended to be used under the general supervision of Army physicians who furnished directions and warnings suitable for the emergency conditions under which they were to be administered. These kits were advertised in daily newspapers and sportsmen's magazine under war surplus headings and were being sold to the public without restriction. The articles were removed from the market because they violated the law and constituted a danger to the public health.

Misbranded Medicines

Misrepresentation of medicines as panaceas for serious disease conditions was more blatant in the old days, but the practice has not been completely abandoned. The credulous purchaser now seldom finds a serious disease he is seeking to cure listed openly on the bottle label. Those who persist in selling their nostrums by means of misleading claims have resorted to circulars, frequently added to the package only after it has reached the dealers' shelves, and to oral misrepresentations of the curative properties of the compound, in a mistaken belief that they can thus circumvent the terms of the law. One defendant on the witness stand was asked why claims for the treatment of diabetes, appendicitis, and a score of other diseases were put in a circular instead of in plain sight on the label. He replied, "Oh, you'd get me for that, I know that's against the law."

The consuming public is protected from such subterfuge under this act by two enforcement weapons. The act proscribes false claims in labeling, which includes accompanying literature, as well as on the label of the medicine package. The courts have interpreted accompanying literature to include circulars that are brought together with the medicine, even though the circulars did not physically accompany the product at the time of interstate shipment. The second is the requirement that medicines be labeled with adequate directions for use, including the conditions for which they are represented. Seizures, criminal prosecutions, and injunctions were based on "spiels" by pitchmen and lectures by "health experts" in which oral claims were made for the treatment of serious diseases although the package itself failed to list the diseases or to give any directions for the use of the medicine for such purposes. If the courts continue to support this view of the meaning of the law, the practical effect will be that worthless medicines cannot be sold under any labeling.

The pitchmen ordinarily depart when enforcement efforts are directed toward their practices but they soon resume elsewhere, and a new round of regulatory activity is required. Some of the "health lecturers," however, leave no stone unturned in their efforts to retain their lucrative business of selling worthless medicines under the front of paid lecture series in hotel ballrooms. The tuition for the class ordinarily ranges from about $5 to $15, but this is nominal in comparison with the medicines the members of the class purchase. One lecturer has a $300 minimum for a year's supply, and numerous expensive adjuncts. Despite the precautions of these promoters to bar from the class inquisitive inspectors and others who might "betray the cause," Food and Drug inspectors have sat through series of 9 to 15 lectures running over 2 hours each to obtain the evidence necessary to sustain criminal prosecution and injunction cases in Federal court. In some classes this was complicated by the refusal of the lecturers to permit the class to take notes, lest they be incriminated. Nine criminal and three injunction actions based on inadequate directions for use were instituted in the Federal courts, and most of these are pending hearing in the fall term of the courts. In only one of these cases was the product involved labeled with a name indicative of its intended therapeutic use.

In 71 seizure actions effected against violative remedies for human use, false and misleading therapeutic representations were charged. The largest number of actions involved remedies for skin and scalp disorders. Also included were treatments for rheumatism and arthritis, colds and respiratory ailments, digestive disorders, foot trouble, muscular strains and soreness, bleeding gums, and glandular disorders. Seizures of emmenagogues and weight reducers were effected on charges that they were incapable of producing the promised results. Fifty-two criminal actions were instituted against individuals who were alleged to be responsible for misbranding remedies with false and misleading therapeutic claims.

A jail sentence of 1 year is being served by a shipper of herb remedies who violated a 3-year probation following a 30-day jail sentence served in 1945. The defendant apparently discontinued all interstate shipments but persisted in making intrastate mail shipments of the misbranded remedies. The 1-year sentence and a fine of $750 were imposed for violation of the probation. The sentence was appealed and the circuit court affirmed the sentence, finding that the defendant had been holding himself out as a doctor to ignorant people and was diagnosing ailments and prescribing medicines, that the medicines he prescribed and sold by mail were in many instances worthless and harmful, and that he was perpetrating a fraud on the public.

A post-mortem permanent injunction was granted in a case involving the distribution of a mail-order gall bladder and kidney remedy. The aged defendant died while awaiting the court's formal ruling on the injunction plea. The court, however, issued the restraining order to prevent the continuance of the business by the defendant's heir.

The court in granting another injunction petition restrained the shipment of a crude petroleum oil unless its labeling bore adequate directions, including specific dosages for each condition, ill, and disease for which it is sold. This action followed a series of seizures and a fine and suspended jail sentence involving representations that the product was an effective treatment for psoriasis, eczema, leg sores, leg ulcers, athletes foot, and other skin disorders. The manufacturer then transferred the conditions for which the product was to be used from the labeling to advertising. After the injunction order was issued, the defendant placed upon the label directions for use for a number of serious disease conditions and several additional seizures were made which are now awaiting trial.

Another injunction granted by a Federal court in 1947 restrained further shipments of the dried powdered leaves and twigs of an herb known commonly as Mountain Misery, under labeling recommending it as an antiseptic and a remedy for a number of serious conditions for man and beast.

The heaviest fine assessed for drug misbranding with false and misleading claims was $2,500 for a remedy purported in accompanying labeling to overcome kidney and bladder trouble, rheumatism, overweight, bad eyes, loss of hair, arthritis, and other disease conditions.

A $2,000 fine was imposed in the case listed in the last annual report as remanded for retrial because supporting affidavits were erroneously sent to the jury room with the information. The defendant, charged with making false claims in accompanying literature that his product would slenderize and enhance beauty, had originally received a 1-year prison sentence and a $4,000 fine.

A fine of $1,000 was imposed upon a corporation which shipped a drug bearing the prescription legend and, at the same time, facilitated its sale to laymen by furnishing drug stores with the names of prospective purchasers. The product was sold as an abortifacient but it was essentially a laxative which failed to bear adequate directions for use or adequate warnings against use when symptoms of appendicitis were present.

Another $1,000 fine was assessed a man who bought a remedy business and claimed he had not been aware that the products were misbranded until he was cited. The judge stated that anyone in business should be aware of the existing laws and anyone who did not know the drug business should transfer to one that does not deal with the treatment of serious diseases. Although the courts are increasingly severe in their attitude toward the promotion of medicines by persons who have no conception of the therapeutic effect of pharmaceuticals, there are many inexperienced individuals who are attracted by the "nice, easy income" the field appears to offer.

Violative veterinary medicinal preparations resulted in 41 seizures and 11 prosecution cases. A criminal prosecution action charging that two swine remedies bore false and misleading therapeautic representations for the prevention and treatment of practically all serious disease conditions of swine was contested. The case, tried before a Federal court and jury, lasted 6 days, during which leading veterinary medical experts testified on the lack of therapeutic effect of alkaline treatments for the disease commonly known as necro or necrotic enteritis of swine. The jury found the defendant guilty of shipping misbranded medicines and a fine of $500 was imposed. Several other fines of from $200 to $600 were levied for the misbranding of veterinary remedies.

Actions on Devices

Many persons who scoff at fantastic cure-all claims for pills and potions are fair game for unscrupulous promoters of worthless therapeutic devices which bear equally blatant claims. They victimize people who can ill afford the hundred- or even thousand-dollar prices. One device selling for $365 or renting for $50 for 2 months was advertised by a circular claiming that 52 percent of its purchasers had an annual income of under $3,000. Even more tragic is the fact that persons turn to these fraudulent devices for the treatment of serious diseases which require immediate competent diagnosis and rational treatment.

This racket was slowed down during the wartime scarcity of metals and electrical appliances but was revived with increased vigor when restrictions on these items were relaxed at the end of the war. It received further impetus with the release of surplus electrical parts manufactured for war uses. Many of these devices are designed to create a scientific impression but would be incapable of curing any but purely imaginary diseases.

The last two reports recorded seizures of a contraption of colored lights distributed for the treatment of such diseases as diabetes, cancer, tuberculosis, and syphilis, and the indictment of the promoter and the "Institute" he founded. After a 42-day trial, perhaps the most bizarre in the history of food and drug litigation, the jury brought in a verdict of guilty on all 12 counts in the indictment. Although he claimed to have a million-dollar business when he testified against the passage of the Food, Drug, and Cosmetic Act in the early thirties, the defendant stated at the trial that he was a poor man as a result of "service to suffering mankind." Pathos and tragedy attended the testimony of victims and the survivors of victims, people who had abandoned medical treatment and succumbed to their diseases while depending upon this device. The most dramatic was the son who blamed his father's death from diabetes on the defendant. Taken from the hospital with a gangrenous foot, the father had been given treatments under the defendant's personal direction. They included use of the machine, stopping insulin, and going on a diet heavy in brown sugar and starches.

In summing up the prosecution case, the presiding Federal judge stated:

> In a case in which you had ample opportunity * * * you completely failed to bring any convincing proof of the value of this system of healing by the shining of attuned color waves except as it came from the lips of 100 or so or 150 poor souls who, without any knowledge of the human body, either with illnesses or with the thought that they had illnesses, swore that they felt themselves relieved by the use of the mechanism. This was very unimpressive, very unimpressive. Not a single scientist from all of those who are found in this country was brought forward to testify to the efficacy or the realism of any scientific principles which you invoked, and the court can only feel that these 112 witnesses whom you brought here, culled from the thousands who used the machine, were simply the dupes of your suggestions and highly exaggerated imaginations.
>
> It is my opinion that this case has well served its purpose * * * if it shuts off the possible use to those who would otherwise get the benefits of prompt genuine medical attention in the fields especially of cancer and diabetes.

The judge fined the corporation $12,000, and on 8 of the 12 counts imposed a 3-year suspended jail sentence on the individual, fined him $8,000 and placed him on probation for 5 years on condition of "an obliteration fully and completely of what has been exposed here as a danger to the American public." The court did not send the elderly defendant to jail lest the cultist fringe he had attracted around him be given the morbid satisfaction of regarding him as a martyr. The judge then said:

> If I am convinced that there has been a breach of this probation that has been extended to you in saving you from the prison life you have had occasion to taste I shall not hesitate to call up the 3 years that shall hang over you like a cloud and you will observe that in the last four counts of the indictment, I have reserved for myself the possibility of even increasing those years.

The defendant appealed the conviction and the hearing will come up in the fall session of the court of appeals. Subsequent to the criminal action, the Court of Appeals for the Ninth Circuit overruled the district court decision which had refused to permit Government seizure of one of these devices in possession of a private consignee. This decision is discussed under Court Interpretations, which also records an appellate court decision on the validity of testimony of medical experts who have not had clinical experience with a device but are presented as medical experts with factual scientific knowledge of the principles involved.

Seizures in 1947, some of which are still pending in the courts, included additional consignments of the colored-light contraption, a motor-driven bicycle ergometer, a "mechanical heart," a short-wave internal heat treatment, a lamp to produce desert air, a gynecological syringe, a diathermy machine, two devices which developed chlorine gas by the electrolysis of a salt solution, a cosmic-light machine, and a shipment of phonograph records transcribing the voice of a hypnotist guaranteeing sleep to the purchaser.

The motorized, jouncing, bicycle exerciser was recommended for overweight, underweight, constipation, nervous tension, muscle, bone, and joint conditions, arthritis, rheumatism, paralysis, heart conditions, menstrual discomforts, and menopause.

The mechanical heart, to treat practically an identical list of diseases, had been the subject of a contested seizure trial in 1941. When the Government's seizure was upheld by a judge who stated "The claims made for the devices in the literature accompanying them were as falsely misleading as well might be possible by the use of the English language," the manufacturer ceased operations. He resumed them in 1946 and the device was again seized under essentially the same labeling. The device consists of dry cells, a small buzzer coil, and attachments intended to supply an electric shock to the body.

The desert air lamp consisted of a stand, a reflector, and the type of heating core ordinarily found in an electric heater. It was represented as a treatment for sinus, coughing, bronchitis, asthma, chronic conditions of head, throat, chest, neuralgia, body aches and pains, arthritis, bursitis, sacroiliac pain, as an alleviation of coughing and intestinal colic in tuberculosis, and as a cure for snoring.

The short-wave internal heat treatment was for 70 disease conditions listed in an orderly alphabetical arrangement from abscesses to whooping cough. The Government's charges included not only the false and misleading therapeutic claims but also danger to health. Self-administration of this device might cause burns and other serious injuries.

The gynecological syringe depended upon hot water injections for the treatment of all uterine diseases, resulting in the "greatest physical and financial benefaction that has ever come to womankind," according to its labeling. The diathermy machine consisted of a portable cabinet and an electrode, pad, cable, and cuffs as attachments to bring the electrical current conveniently to various parts of the body requiring treatment for ills. The seizure libel charged inadequate directions for use.

The chlorine gas devices were recommended for use in the treatment of sinus trouble, bronchitis, and various other respiratory diseases. Both depended upon the development of chlorine gas by electrolysis of a salt solution.

The cosmic-light device consisted essentially of a high-voltage transformer in a box with neon-like tubes on top and an attachment containing similar tubes. Sold principally to chiropractors and physical therapists and occasionally by them to patients, at considerable profit, its benefits were attributed to color and ozone. Every kind of condition was to be treated with the feet over the base of the unit and the applicator held over the affected part, with the patient looking into the colors, which the promoter said "is part of the treatment, the greater part." Sold for the treatment of infantile paralysis, blindness, arthritis, heart trouble, sinus infections, prostate trouble, and various other diseases, testimonials indicated that its users had found many additional diseases which it benefited, and other uses, such as the purification of the air in funeral parlors and other places where people congregated in close quarters.

The hypnotic phonograph record was certified as an inducer of "blissful SLEEP in the most delightful manner," and claimed the added advantage of deferring slumber until a convenient time—"minutes or hours later."

The circuit court of appeals, in overruling the district court's dismissal of a seizure of a colonic irrigator, discussed under Court Interpretations, made this comment about the labeling of the device: The circulars "hold the machine out as a cure-all for all the ills that affect the human body * * * Nothing is overlooked. Relief is promised from every ill, whether known or unknown. * * * The circulars are inherently dishonest and deceiving and constitute misbranding within the meaning of the Act."

Criminal actions against the promoters of many of the devices mentioned above are now pending court hearing.

The only violations in the field of adulterated devices were defective mechanical prophylactics, which decreased to 11 seizures from the 1946 figure of 26. No new criminal actions were instituted but former cases terminated in the fiscal year resulted in fines of $8,250, the second highest of the year, $1,200, and $800, all on charges of defects.

Vitamin, Mineral, and Other Products of Special Dietary Significance

The continued interest in improving the nutritional status of the country makes the regulatory work in this field of major importance.

For the most part, products specifically offered as a source of vitamins, minerals, or other special dietary factors were found to be of satisfactory composition. The labeling of such products, however, continues to reflect the efforts of some promoters to exaggerate their contribution to the well-being of the public in general. Previous regulatory actions have prompted a change in the character of the claims, from those which specifically offered products of this general type as effective treatments for a wide variety of serious diseases to more generalized claims to the effect that vitamin and mineral products will improve health, overcome "that tired feeling," and prevent or correct many common aches and pains of unknown origin. Scientific investigations in this field fail to sustain the position that the average individual will receive any specific value from the indiscriminate consumption of vitamin and mineral preparations. Products of this general character have, in a number of instances, been represented by so-called health lecturers as "cure-alls" as reported under Misbranded Drugs.

During the past year, a considerable number of vitamin and mineral supplements have appeared on the market as effective aids in reducing diets. The labeling of such products has generally been characterized by the over-emphasis placed upon the product's part in a reducing regimen, the implication being that the product itself would be of some value in bringing about loss of body weight. Properly devised reducing diets make dietary supplements of very minor importance.

The adverse effect of mineral oil, when consumed as a part of the diet, on vitamin and mineral assimilation prompted vigorous regulatory action against salad dressings, as reported earlier in this publication.

The lack of scientific justification for routine use of protein supplements to the diet apparently discouraged, to some extent, the marketing of protein hydrolysates and amino-acid preparations for indiscriminate use. There is no evidence that the average individual in this country obtains either insufficient protein or protein of improper amino-acid content. Continued scientific work in this field will probably establish the usefulness under professional supervision of products of this kind in a limited number of instances.

Folic acid, one of the vitamins of the B-complex, has been shown to possess definite therapeutic value in the treatment of certain types of macrocytic anemia. The nature and proper treatment of these diseases are such as to limit the usefulness of folic acid to that under professional supervision. Whether folic acid functions as an essential nutrient in the diet of man has not been adequately demonstrated. Before representations for use of this substance as a needed dietary factor are justified, further investigations are necessary to establish its value.

New Drugs

While new-drug applications submitted and those made effective during the fiscal year increased over the corresponding figures for 1946, there were no developments of major importance during the year. The increase is attributed more to a return to normal peacetime conditions than to the release of preparations developed as a part of the war effort. Several preparations developed outside the boundaries of the United States were submitted. With the expansion of international trade this tendency may be expected to increase.

New drug applications submitted numbered 265, of which 220 were ruled to be new drugs. Corresponding figures for 1946 were 235 submitted and 174 classed as new drugs. Applications made effective in the 1947 fiscal year were 145, in comparison with 114 during the previous year. In the first 9 years of operations under this provision of the act, 6,264 applications have been received and 4,162 have been permitted to become effective. Of the remainder, 1,279 were incomplete, 400 were not new drugs, 376 were withdrawn, 11 were refused, and 36 were still under study at the end of the 1947 fiscal year.

Actions on Cosmetics and Colors

The three violative cosmetics seized were all hair preparations. One was a dressing containing a nonpermitted coal-tar color. The second was a bleach with a poisonous and deleterious ingredient which also failed to bear a correct label statement of ingredients. The third was a dressing with ingredients falsely misrepresented. Two criminal prosecutions were instituted, one for short-weight cold cream and the other for a hair preparation with false representations as to its composition. Fines were imposed upon two cosmetic manufacturers and a distributor for violative shipments of dangerous cosmetics. The first fine was based on shipments of a hair lacquer which had caused skin injuries to users. Two cases were based on shipments of a hair preparation and a sun-tan oil colored with a noncertifiable coal-tar dye which has been found to produce cancer in experimental animals. A verdict of not guilty was handed down in a criminal action charging that "quinine" in the name of a hair lotion which contains an insignificant amount of quinine is misleading.

A $2,000 fine was imposed upon the manufacturer of a so-called wrinkle cream and a weight reducer, on charges of false and misleading claims, in violation of the drug sections of the act. Any cosmetic which bears therapeutic claims classifies itself as a drug; most of the 1947 seizures and prosecution actions involving cosmetics are included in the drug violations.

Two seizures and one criminal action were based on colors claiming to be suitable for use in foods, drugs, and cosmetics but shipped in violation of the certification requirements. The criminal case was terminated with a fine of $300. Suspensions for violation of the certification regulations are listed under Certification Services.

Court Interpretations of the Food, Drug, and Cosmetic Act

An active year of appeals from court decisions, both by the Government and the defendants or claimants concerned, has resulted in a number of reversals in the court interpretations recorded in the last report. Several new rulings on provisions of the act not previously reviewed were handed down in the fiscal year. With more severe penalties being imposed by the Federal courts for violations, vigorously contested trials were a natural consequence. In these contests, many technicalities of the law have been explored, but as a rule the courts have followed the attitude of the Supreme Court, which said:

> The purpose of the act is to secure the purity of foods and drugs and to inform purchasers of what they are buying. Its provisions are directed to that purpose and must be construed to effect it.

Conflicting trends among the courts have developed, however, as to how far the Government may go in protecting the individual in local transactions subsequent to interstate shipment. The body of judicial constructions of the Government's powers and limitations in enforcing the Food, Drug, and Cosmetic Act is growing rapidly.

On May 19, 1947, the Supreme Court upheld the Government in a case involving the guaranty provision of the act. The district court had dismissed the case on the grounds that it was without jurisdiction since the violation alleged was the giving by a seller to a buyer of a false guaranty under the Federal Food, Drug, and Cosmetic Act on a lot of adulterated goods but there was no evidence that this lot was actually shipped by the buyer in interstate commerce. The firm receiving the guaranty does as a general practice ship these products in interstate commerce. It was the Government's contention that the offense consisted in the giving of a false guaranty under the Federal act and it was immaterial whether or not the particular shipment had actually moved in interstate commerce. The case was appealed directly to the Supreme Court which, in ruling that the district court did have jurisdiction, stated:

> The commerce clause of the Constitution is not to be interpreted so as to deny to Congress the power to make effective its regulation of interstate commerce. Where that effectiveness depends upon a regulation or prohibition attaching regardless of whether the particular transaction in issue is interstate or intrastate in character, a transaction that concerns a business generally engaged in interstate commerce, Congress may act. * * *.

The Government's contentions were upheld when it appealed district court dismissals, recorded in the 1946 report, of two therapeutic device seizures. One involved another seizure of the colored light machine for giving "tonations," after the Government had won a strongly contested seizure in another district court. The second court had ruled that as long as an individual is satisfied, he has a right to select his own manner of treatment, whether or not he has been misled by false impressions. The Court of Appeals for the Ninth Circuit, in overruling this opinion, stated in part:

> * * * When the article was introduced into and while it was in interstate commerce, its labeling was false and misleading. Hence the article was misbranded, within the meaning of the Act, when introduced into and while in interstate commerce.
>
> This proceeding was commenced on July 26, 1945. At that time, the article was not in interstate commerce. That, however, is immaterial; for, having been misbranded when introduced into and while in interstate commerce, the article was liable to be proceeded against and condemned at any time thereafter.
>
> It is immaterial, if true, that appellee had purchased and paid for the article, had it in his home, was satisfied with it and desired to keep it. * * *
>
> It is said that appellee has a right to prescribe for himself and to "seek to cure himself of physical ailments by any means he chooses, so long as the means chosen is not inherently dangerous or harmful." Such a right, if it exists, is subordinate to the rights of appellant. * * *

After the end of the fiscal year, the Supreme Court denied the claimant's petition for judicial review.

The second device appeal involved the district court's interpretation of the weight to be given the testimony of the Government's medical experts, who had not actually used the device in question. The Court of Appeals for the Tenth Circuit said:

> * * * While the trial court did not exclude the testimony of the five medical experts offered by the government, it was of the apparent opinion that their testimony was entitled to no consideration because they had neither tested the device in question nor had they observed its operation. * * *
>
> That these medical experts were competent and qualified to testify as to the matters in the issue is clear. They were not disqualified merely because they had not used the device in question or had not seen it in operation. They testified not only that they were conversant with colonic irrigation, but also that they were familiar with the principles of the particular device in question. In its fundamentals, the device is not essentially different from any other circulatory apparatus for the purpose of giving an enema. * * *

The Ninth Circuit Court of Appeals reversed the interpretation handed down by the District Court of the Southern District of California in 1946 with respect to accompanying labeling. The case was based on leaflets shipped 71 days before the shipment of the drugs. Although it was stipulated at the trial that the leaflets and drugs were exhibited together in the consignee's store, the circuit court overruled the conviction on the grounds that the information did not allege that the labeling and the article came together in the hands of the consignee, but stated only the times at which the two were shipped and that they related to each other.

The 1946 report quoted excerpts from the district court decision upholding the condemnation of an entire shipment of rubber prophylactics on the basis of defects found in representative samples. The defendant appealed the decision and on March 4, 1947, the Circuit

Court of Appeals for the Eighth Circuit rendered an opinion affirming the trial court's findings in every respect.

In a controversy over the supervision by the Food and Drug Administration of the reprocessing of a seized shipment of raspberry puree, the district court (Northern District of Ohio, Eastern Division) sustained the Government's right to refuse to supervise a type of operation which would result in the use of adulterated food for human consumption. The court had released the libeled goods under bond for distillation or filtration under the supervision of the Food and Drug Administration, which held that distillation was the only method which would bring the puree into compliance with the law. The Government filed a motion with the court to set aside that portion of the decree which authorized use after filtration. The claimant filed a counter motion to compel the Administration to supervise the reprocessing under the filtration method provided by the decree. The court stated, in part:

> * * * Where several methods of reprocessing are enumerated, as in this decree, the question of who shall determine the one to be used and which, when used, will bring the reconditioned puree into compliance with the statute seems to be the only question for decision, i. e., does the claimant who does the reprocessing or the Food and Drug Administration under whose supervision the work is to be done have the right to determine the method which would bring the reprocessed product into compliance with the law?
>
> The Food and Drug Administration has determined that distillation is the only process which would recondition this puree for human consumption and which it would approve. I see no abuse of discretion in making this determination nor can the court interfere with that determination. To interfere would be substituting the judgment of the court for that of the Food and Drug Administration upon a matter which it is better able to decide and upon an issue which I think is not properly joined in this case.
>
> The fact that the claimant will suffer financial loss is not of great materiality. Its product was found to be unfit for human consumption and the reconditioning is not a matter of right but of permission by the Court.

The Food, Drug, and Cosmetic Act authorizes the establishment of regulations setting tolerances for added poisons where these are required in the production of a food or cannot be avoided by good manufacturing practice. Under this section of the law hearings were held in 1944, evidence was taken, and a tolerance for fluorine was established when present as fluorine-bearing residues on apples and pears. This regulation was challenged and the appeal came on for consideration before the Ninth Circuit Court, which held that the regulation established by the Administrator applied to the element fluorine alone and did not apply to its compounds such as cryolite residues, notwithstanding that compounds of fluorine used as insecticides were the real subject of discussion at the Administrator's hearings. Because the court did not invalidate the regulation in its applicability to elemental fluorine (which is not an insecticide used on fruit), the Government was a technical winner of the case and could not appeal to the Supreme Court for review. Since efforts to obtain the circuit court's approval for rewording the regulation to meet the court's objections have been futile, presumably a new regulation can be established only after new hearings and the resubmission of evidence.

The Government gained an important ruling but lost the decision in a slack-fill case reviewed by the Circuit Court of Appeals for the First Circuit. The case was based on the seizure of candy occupying only about half of the container. The article was correctly labeled as to weight. The District Court of Rhode Island dismissed the libel on factual grounds and declared that the Government would have had to prove actual deception of the consumer in order to sustain its action. The district court held also that because the net weight statements were accurate, such circumstance should be considered together with the deceptive packaging provisions. The circuit court sustained the dismissal of the libel on the finding of fact of the district court that the container was not deceptively filled. The appellate ruling did, however, sustain the Government's contention that proof of actual deception is not required, and that an accurate label statement of net weight does not excuse deceptive packaging.

The 1946 report recorded the dismissal by the District Court of Arizona of a seizure of an interstate shipment of macaroni products that had become contaminated by rodents while held in their original packages in the claimant's warehouse and stated that the decision which had been appealed by the Government had been upheld by the appellate court after the end of the fiscal year. The Government in its appeal cited the specific language of the 1906 act which included within its jurisdiction goods in original unbroken packages after interstate transportation, the legislative history of the 1938 act, in which Congress recorded the intention of retaining and expanding the 1906 act controls, and the long history of uncontested enforcement of this program. When the Court of Appeals for the ninth Circuit handed down a decision adverse to the Government's contention, the Supreme Court was requested to review the case. On February 10, 1947, certiorari was denied. Since this decision meant the termination of an important protection that the consumer had been receiving throughout the history of Federal food regulation, the Congress has been requested to amend the seizure section of the act to meet judicial objections.

After this clarifying amendment had been recommended to the Congress by the Federal Security Administrator, the Circuit Court of Appeals for the Fifth Circuit reversed the prescription drug sales decision discussed at some length in the 1946 report. This case was based on a retail pharmacist's over-the-counter sales of sulfathiazole tablets in an insufficiently labeled package. The United States District Court for the Middle District of Georgia had overruled the defendant's attack on the powers of Congress to regulate acts by retailers which resulted in the misbranding of goods from interstate sources and his contention that his acts did not constitute a crime under the Food, Drug, and Cosmetic Act. The circuit court's reversal was on the grounds that since the pharmacist had obtained the drug from a local branch of the manufacturer, which had received it from another State, he had neither received nor sold the article in interstate commerce. The court also held that while the act prohibits label changes on interstate articles by a retailer, intrastate sales made from a bulk package previously shipped into the State, without mutilating or removing the label, are not illegal under the Federal act. The Supreme Court has granted the Government's petition to review the circuit court's decision.

Legislation and Regulation-Making Activities

Through prompt and unanimous action of the Congress, the streptomycin amendment recommended by the Federal Security Administrator was enacted on March 10, 1947, before the termination of allocation controls which had required the predistribution testing by the Food and Drug Administration of all batches manufactured. The provisions of the streptomycin amendment are identical with those for penicillin. Batches are submitted to the Food and Drug Administration by the manufacturers and are certified for distribution after they have met tests, specified in the regulations, which establish their purity, potency, and safety. The amendment also makes confidential any trade secret entitled to protection, which is acquired under the authority of sections of the act providing for the certification of insulin, penicillin, or streptomycin. No objections to its passage were registered.

Regulations under drugs and devices were amended to include under inadequate directions for use the omission of directions in all conditions for which the drug or device is represented, including "advertising disseminated or sponsored by or on behalf of its * * * distributor." The new-drug section regulations were amended to exempt from the provisions of this section drugs licensed under the Public Health Service Act of July 1, 1944. Regulations amended or issued affecting insulin, penicillin, and streptomycin are recorded under Certification Services.

At the close of the fiscal year a bill was before the Congress to amend two sections of the Food, Drug, and Cosmetic Act to clarify its language, which recent court decisions had revealed to be inadequate to provide the consumer protection intended by the Congress. These decisions are discussed in the chapter on Court Interpretations. The

Federal Security Administrator recommended to the Congress that the act be amended to restore essential consumer protection by definitely providing for enforcement operations that will include the seizure of products that become contaminated in terminal storage or otherwise adulterated subsequent to interstate shipment. While the recommended legislation was being considered by the House Committee on Interstate and Foreign Commerce, the appellate court decision was handed down denying Federal jurisdiction in an over-the-counter drug case on the grounds that it was not the first sale after interstate shipment. The committee revised the proposed amendment to further expand the coverage of the act in specific terms that would meet this judicial construction.

House Report No. 807, in which the Committee on Interstate and Foreign Commerce recommended passage of the amendment, stated that "these changes are vitally important to continued effective operation of the Act," and pointed out that the warehouse contamination decisions "have brought an end to an important protective public service that has been carried out for 40 years under the present law and the original Food and Drug Act of 1906." The report stated that—

> some 20 percent of the seizures of adulterated and misbranded foods instituted during recent years involved cases where the adulteration clearly resulted from insanitary conditions or other causes during storage after shipment. In a great many other cases it would have been impossible to prove that contamination or other deterioration occurred before the interstate journey ended. Even where that fact eventually could have been established through investigations, the time required to complete such investigations frequently would have been such that much of the unfit material would have reached the consumers' tables or medicine cabinets before it could have been seized.

Later in the report the committee stated:

> If the volume of interstate commerce in foods, drugs, devices, or cosmetics is to be maintained and extended it is necessary that the integrity of the products be preserved, so far as possible, up to the time of purchase by the ultimate consumer. The reputation of any nationally distributed product is impaired and the interstate commerce therein is depressed by adulteration or misbranding while awaiting sale. This is especially true where such adulteration presents a threat to the public health. The misbranding or adulteration of drugs while they are being held for sale which renders their use unsafe or unsuitable because of failure to bear adequate directions for use or warnings against probable misuse, or for any other reason, tends to bring those articles into disrepute and to restrict their proper use. * * * Having accepted the advantages flowing from interstate regulation, local distributors should not be free to do acts which deny to consumers the protection Congress intends they should have.

In the last days of the first session (80th Cong.) the bill was brought before the House on a Unanimous Consent Calendar but failed to pass because of a single dissent. It remains, therefore, as unfinished business to be considered in the second session.

Food Standards

Seven orders establishing new standards or amendments to existing standards were issued during the fiscal year. Several of these were based on hearings discussed in the last report. The following orders were promulgated: (1) Definitions and standards of identity for enriched macaroni and enriched noodle products; (2) an amendment to the definition and standard of identity for macaroni products to provide for the use of gluten as an optional ingredient; (3) a definition and standard of identity for shucked oysters; (4) an amendment to the definition and standard of identity for canned peas to permit the inclusion of additional alkaline salts as optional ingredients; (5) definitions and standards of identity and standards of quality for canned green beans and canned wax beans; (6) definitions and standards of identity for various corn meals, corn grits, corn flour, enriched corn meals, enriched corn grits; (7) an amendment to the definition and standard of identity for canned tomatoes to permit the inclusion of additional optional ingredients for the purpose of firming the tomatoes.

The hearings on which the amendments listed under (4) and (7) above were based were held in the 1947 fiscal year on proposals by members of the canning industries concerned. Another hearing held on proposals by members of the canning industry was on the amendment of definitions and standards of identity for canned apricots, canned cherries, canned peaches, canned pears, and canned fruit cocktail, to provide for the use of rum as an optional seasoning ingredient. The fourth hearing held in 1947 began on April 4, extended over into the present fiscal year, and ended July 22. Exclusive of some adjournments taken, it continued for about 7 weeks. It was held on proposals by the Administrator to amend certain existing standards for hard cheeses and to adopt definitions and standards of identity for additional hard cheeses, process cheeses, cheese foods, and other cheese products. It was attended by representatives of all the leading cheese manufacturers in the United States and of the cheese-exporting European countries, including France, Holland, Denmark, Norway, and Switzerland. Representatives from Argentina also testified at the hearing.

Certification Services

Four types of products are subject to predistribution examination and certification under the Food, Drug, and Cosmetic Act and subsequent amendments enacted as situations developed that required controls beyond those possible under customary postshipment sampling procedures. The certification services are all fully financed through fees which are turned over to the United States Treasury.

The manufacturers submit samples of each batch, which the Food and Drug Administration tests for compliance with the specifications established by regulation. Certificates, issued after such tests are passed, are a requisite of distribution of the drugs covered. The act specifies that coal-tar colors used in foods, drugs, and cosmetics must be from certified batches. The effectiveness of the various certification systems is checked by factory inspections and the collection of samples on the market. Certification services may be suspended by the Administrator because of violation of the regulations; persons shipping certification items without application for certification are subject to the criminal penalties of the act, and their shipments to seizure.

Coal-Tar Colors

Certification of coal-tar colors in 1947 covered a larger number of batches representing a greater quantity in pounds than in any previous year. A total of 3,299,051 pounds was involved in the 4,204 batches certified. The 42 batches rejected were equivalent to about 1 percent of the total number of batches.

Certification service to five color manufacturers was suspended by the Administrator because of their failure to observe the provisions of the regulations in their handling and distribution of coal-tar colors. Three of these suspensions and one effected in 1946 were lifted later when the manufacturers were able to demonstrate their willingness and ability to comply with the regulations. Suspension of certification service to one manufacturer effected in 1944 was also restored during this year.

Insulin

Under the provisions of the regulations providing for the certification of batches of drugs composed wholly or partly of insulin, 262 samples were examined. These samples represented 56 materials approved for use in making batches of insulin-containing drugs, 1 batch of protamine zinc insulin which was not certified because it did not meet the specifications of the United States Pharmacopoeia for protamine zinc-insulin injection, and the following which were certified: 108 batches of insulin, 73 of protamine zinc insulin, and 24 of globin insulin (with zinc).

The fees collected averaged less than two-tenths of a cent per vial certified.

The regulations were revised to provide a compilation of all existing amendments, to omit tests and methods of assay for protamine zinc insulin which are now described in the United States Pharmacopoeia, and to improve the biological reaction test for globin insulin (with zinc).

Penicillin

The fiscal year 1947 was the first full year of the certification of penicillin by the Food and Drug Administration. During the year 7,429 batches were examined, of which 102 batches were refused certification. The rejections were based on the fact that the batches were either low in potency or failed to pass the moisture test, the clarity test, the heat stability test, the microscopical test for crystallinity, the pH test, or the standard for penicillin G.

The production of penicillin continued to increase during the year until about May, at which time the amounts certified leveled off.

The Administration examined 180 official samples of penicillin that were collected on the market from certified batches, and the recall of 13 batches by the manufacturers resulted because of deterioration in potency after certification, passed expiration dates, and one case of shipment prior to certification. Eight seizures of penicillin were consummated during this period because of noncertification of the batches involved. One injunction recommendation was sustained by the courts for the promiscuous over-the-counter sale of penicillin troches. Four emulsifying agents used as diluents for penicillin were withdrawn from the market when it was shown that they failed to prolong the action of penicillin in the human body as represented. Their sale was resumed after suitable modification of the formulae and literature. Six distributors of penicillin were advised to recall batches of pencillin that had been distributed prior to supplemental certification; all available portions of the distributed batches were recalled and supplemental certification issued on the returned portions. Four firms that were manufacturing penicillin preparations in violation of section 301 (k), since they did not have the new products certified, were cited. Entry was denied one importation of penicillin troches because of low potency.

During 1947 the penicillin regulations were amended to provide for the following new products: Crystalline potassium and sodium penicillin, penicillin sulfonamide powder, penicillin vaginal suppositories, buffered crystalline penicillin, and capsules buffered penicillin with pectin hydrolysate. Other amendments to the regulations changed the quantities of the drug that may be packaged in a single immediate container, removed the refrigeration requirement from tablets buffered penicillin and penicillin in oil and wax, and permitted certain products which formerly could contain only calcium penicillin to include either calcium or crystalline penicillin. The penicillin regulations were further amended to establish standards for penicillin G, and tests and methods for its assay, when this single type of penicillin was developed on a commercial scale. Amendments to the regulations placed an upper limit on the amount of penicillin K that penicillin may contain, since there are indications that this type is the least therapeutically effective of the known penicillin types. With this amendment there was also established a method for the determination of the amount of penicillin K contained in the batch.

Streptomycin

Prior to the passage of the streptomycin amendment, previously discussed under Legislation, the Food and Drug Administration pretested all batches of streptomycin under wartime controls, before they were released to the Army and the Navy. Certification under the Food, Drug, and Cosmetic Act began with the promulgation of regulations on April 4, 1947. During the fiscal year, under both types of predistribution testing, the Administration examined 460 batches of streptomycin, of which 13 batches failed to pass certain of the specified tests and were rejected for release or certification. These rejections were based on the fact that the batches contained histiaminelike substances, were pyrogenic, cloudy, toxic, or low in potency. Other tests all batches must pass include sterility, pH, and moisture content.

The only form of streptomycin now certifiable is that used primarily for injection, although this form is occasionally used by clinicians for oral administration or topical application. The salts of streptomycin which are certifiable are streptomycin sulfate, streptomycin hydrochloride, streptomycin phosphate, and streptomycin trihydrochloride calcium chloride.

The production of streptomycin increased markedly during the year. In the month of June 1947, approximately 500,000 grams were produced. There is now only one mass producer, but a number of firms now producing the drug on a pilot plant basis have new plants in process of construction, which should be in mass production in 1948. This will not only greatly increase the number of batches submitted for certification, but will probably result in new dosage forms of the drug.

OTHER ACTS ENFORCED

Under the Tea Importation Act, 88,962,002 pounds of tea were examined, of which 229,905 pounds were rejected. This constitutes a small decrease in tonnage from the 94,477,300 pounds examined in the previous fiscal year and a marked increase over the 7,466 pounds rejected. The higher percentage of rejections was to be expected when the rigid wartime controls ended. Rejected tea resulted in five appeals to the Board of Tea Appeals, which upheld the decisions of the tea examiner in every case.

While black teas comprised over 79 million pounds of the tea examined there was a marked increase in other types of tea offered for entry. More than 8 million pounds of green tea and over 1 million pounds of Oolong were imported, as well as small lots of mixed teas. By country of origin, nearly 78½ million pounds came from Ceylon and India, over 7½ million pounds from Japan, nearly 2 million from China, over 1 million from Formosa, and small lots from Sumatra and Java. Nearly 10 percent of the poundage from China and 4½ percent of that from Formosa were rejected.

The Food and Drug Administration temporarily loaned its supervising tea examiner to the United States Commercial Corporation to serve in Japan as an advisor for the resumption of tea exportation by Japan. His services were requested in an effort to establish quality standards and handling practices that would meet all United States requirements for tea importations.

Three seizures under the Caustic Poison Act involved two shipments of metal etching kits and one of a chemistry set failing to bear the labeling required of caustic poisons in household-size packages. The etching kits did not display conspicuously on the label the common name nitric acid, the word "poison" in the specified size of type, and the antidote to be used in case of accidental injury. The chemistry set contained sodium bisulfate which did not bear the poison warning and antidoes.

Only one Canadian concern is now operating under a permit required by the Import Milk Act to enter milk into the United States. Several inquiries were received from other firms as to the sanitary inspections and the examination of herds which are prerequisites of such permits.

No violations of the Filled Milk Act were encountered during the fiscal year.

SCIENTIFIC INVESTIGATIONS

Pure research is not a function of the Food and Drug Administration, but many research studies are planned and carried out with the sole objective of sound and efficient enforcement operations. Certain investigations are made, also, for Government agencies that do not have the laboratory facilities and the scientifically trained personnel to conduct studies essential to their programs.

To perform its regulatory operations, the Administration must have accurate, objective knowledge of the composition of the products under the jurisdiction of the acts enforced, the potency and therapeutic efficacy of drugs and vitamins, the potential dangers inherent in various substances and combinations of substances, and the methods used in preparing and handling them. Also, it must have adequate methods for the detection of adulteration in terms of proof that will sustain court actions. While a great body of satisfactory methods has been developed in 40 years of enforcement operations, testing methods must utilize new scientific techniques and must keep pace with the progress of the industries which are continually developing new products and new processes. They must also serve to detect new types of adulteration which appear periodically.

This chapter lists the methods developed or under study in 1947 and mentions briefly some of the basic research studies undertaken. Papers published in scientific journals, detailing the findings in some of these investigations, are listed in the bibliography at the end of this report.

Among the chemical methods developed for the detection of filth and decomposition in food was a new and specific method for lactic acid. The presence of lactic acid is indicative of souring in dairy products, but full utilization of this fact as an aid in regulatory work has been handicapped by lack of an accurate and specific method. As a byproduct in the development of this new method, an acid hitherto unobserved in decomposed dried or frozen eggs was detected and identified as succinic acid. A specific method for this acid was then developed, applicable to egg products. Succinic acid has not yet been detected in sound egg products.

Decomposition studies were made upon several fishery products and authentic packs were made on canned, smoked, and salted fish and canned crab meat, using fresh and decomposed raw materials.

Considerable progress has been made in using the water-insoluble acids present in butter as an index of decomposition in the cream from which the butter was made. Fresh milk and sound cream contain small quantities of these insoluble acids, but as molds and other contaminating micro–organisms grow in cream and decompose it, the quantities of these acids increase markedly. As the year ended, the method was being submitted for collaborative study. Progress was made, also, in detecting cow manure in milk by means of the porphyrins, a class of chemical substances which occur in manure but not in milk or dairy feedstuffs. A method was developed for their detection employing fluorescence under ultraviolet light. Its usefulness is now limited mainly to the insoluble particles of manure which may remain in milk, since the porphyrins dissolve to only a slight extent in the milk and the method is not sufficiently sensitive to detect very small quantities of manure in solution.

After thiourea was shown to be too hazardous to be used on citrus fruit, the industry turned its attention to other chemicals which might serve the same purpose of inhibiting spoilage without having the objectionable properties of thiourea. One of those suggested and tried, in the hope that it would not penetrate into the juice and flesh, was 2-aminopyridine. While toxicity studies were being conducted by Administration pharmacologists, the food chemists developed two methods for its detection in orange juice and peel. In an experimentally treated batch of oranges, it was found to penetrate into the juice to the extent of about 40 parts per million. A similar problem developed from the use of wrappers impregnated with diphenyl to reduce moldiness and rot in oranges. A report of two serious illnesses which the attending physician feared might have been caused by eating oranges wrapped in such impregnated papers highlighted the need for an accurate method for detecting diphenyl in orange juice or peel. An English method was refined until a half part per million could be detected in juice. On commercially treated lots none was found in the juice, but amounts of from 25 to 30 parts per million were in the peel.

New methods for the detection of filth and decomposition in foods by microanalytical procedures included one for the detection of rodent hairs on the surface of factory equipment. Studies on the decomposition of strawberries, raspberries, and blueberries have resulted in considerable progress in relating decomposition of the raw material to the mold count of purees and other finished products. Filth and decomposition criteria obtained through authentic packs and field observations are used in the correlation of microanalytical methods.

Microanalytical research during the year has been concentrated on fundamental studies bearing upon the detection and identification of filth elements in foods and the detection of the use of decomposed raw materials in fruit products. Extensive field and laboratory studies were made to determine the basic factors leading to the contamination of butter with insect and rodent filth. Butter manufacturing plants in the western, central, and eastern parts of the country were investigated, as well as the sources of supply of milk and cream for butter making, in order to relate the findings of filth elements in the finished product to sanitary conditions in the plant and on the farm. Other investigations of the relation of factory practices and the condition of raw materials to the occurrence of filth in the finished product included corn and tomato canneries and their output.

Any progress in the improvement of vitamin-determination methods finds immediate application in the examination of samples. The search is continuous for methods that will yield the most accurate results obtainable and are, at the same time, rapid enough to permit increased coverage. A fluorimetric method for the determination of riboflavin has been improved to the point where it is the preferred method for this vitamin in routine examinations. There has been some definite progress in improving the chemical method for vitamin D which will make it possible to extend its use. The determination of vitamin A in oleomargarine by chemical methods still presents some difficult problems; it is possible, however, to check the potency of most samples without resorting to the slower assays involving the feeding of laboratory animals.

Synthetic folic acid as found in pharmaceutical preparations may be determined quite satisfactorily by the use of micro-organisms, but this method is not reliable for application to ordinary foods in which the vitamin is found. The Administration's attempts to develop a rat method for folic acid have so far proven unsuccessful because of the difficulty of controlling intestinal synthesis. Last year's report referred to the employment of human subjects on carefully controlled diets in certain vitamin tests. This procedure has been found to be of practical use in detecting products in which the vitamins are not available when the preparation is consumed.

Administration pharmacologists have improved the bioassay method for determining the toxin in clams poisoned by plankton organisms. Further efforts are being made toward isolating the toxin in a chemically pure form.

Pharmacological investigations in the drug field have resulted in several improvements in assay methods, among them those for the biological assay of digitalis and insulin-containing drugs, and a new method of preparing globin insulin (with zinc).

Methods for detecting adulteration in estrogenic hormones have been under study in both the pharmacological and chemical laboratories. Previous reports have discussed attempts to flood the market with synthetic estrogenic preparations represented as the higher-priced natural substances, and this report records fines imposed upon concerns convicted of this practice. Refinements in bioassay methods and new chemical methods were undertaken because the bioassay methods first used were slow and expensive and not efficient for regulatory use. The newer chemical tests meet these objections and offer more accurate quantitative results. By the use of these methods the Government was able to support its analyses in Federal court in 1947 in the first contested case based on the composition of a product purporting to be natural estrogenic material but consisting of a large proportion of synthetic substances.

Work is in progress on a method to determine the quantity of each of the seven naturally occurring estrogens separately; the older methods treat all of the estrogens as a single group. Studies are also under way on methods for bioassays and quantitative chemical determinations of androgens. During the year a chemical method was developed which was adaptable to the determination of five synthetic estrogens now on the market, including diethylstilbestrol. Other methods for the chemical analysis of drugs in the past fiscal year included the development of a procedure for the determination of ephedrine in various dosage forms; this is now being subjected to collaborative study to test its suitability for regulatory work.

A chemical method for the determination of penicillin G was completed in 1947 and is now a part of the penicillin regulations. Intensive work was done on the penicillin enhancement factor, which is present as an impurity in some lots of amorphous penicillin. When amorphous penicillin containing the enhancement factor is added to crystalline penicillin, the therapeutic effect of the drug is considerably increased. A new method was developed for the determination of this factor in penicillin, and studies of it are continuing. In the course of a study designed to yield a chemical method for the estimation of streptomycin, results were obtained which indicated the presence of more than one type of streptomycin.

Investigations were begun on a new antibiotic which may soon be available to the medical profession for clinical use. Known as Bacitracin, it is produced by a special strain of *B subtilis.* Plate and turbidometric assay techniques were developed and some preliminary toxicity studies were conducted. A method for the determination and assay of tyrothricin in commercial samples, many of which contain interfering and masking substances, has been satisfactorily completed. An investigation of this and formerly used methods is now being undertaken by members of the industry in collaboration with the Food and Drug Administration.

Work has started on the evaluation of a large collection of investigational samples of antiseptics for preoperative preparation of the skin, with a view to devising a rapid laboratory routine method for the appraisal of the efficiency of products of this type. Grading and evaluating representative specimens of various types of pathogenic micro-organisms to augment and supplement the present species of antiseptic test organisms was being completed at the close of the year. Also under study was a method of testing quaternary ammonium compounds.

Three research studies grew out of physicians' objections to the difficulty in handling and administering viscous penicillin in oil and wax. (1) A number of firms revised their manufacturing processes in an effort to overcome these objections and produced a fluid which could be easily injected at room temperature. Clinical investigation by the Food and Drug Administration disclosed that unless the penicillin was of the proper particle size in fluid penicillin in oil and wax, the blood levels of penicillin over a 24-hour period were materially lower than those produced by injections of 300,000 units of the viscous product, which was not affected by particle size. Since the fluid product manufactured from penicillin of proper size is as efficacious as the viscous product, consideration is being given to amending the pencillin regulations by establishing standards for the particle size of penicillin used in fluid penicillin in oil and wax. (2) Several manufacturers introduced an emulsifying agent composed of vegetable oils and oxycholesterin derivatives, which they represented as producing comparable therapeutic blood levels of penicillin to those obtained by penicillin in oil and wax. Clinical studies showed that the levels obtained from these products were practically the same as those obtained with aqueous solutions of penicillin, which produce measurable levels for only 4 to 6 hours. All such penicillin vehicles were withdrawn from the market until suitable formula changes were made and the labeling revised to give the physician information as to the prolongation of penicillin blood levels that may be expected from their use. (3) The Food and Drug Administration laboratories made progress in developing a new type of injectable penicillin preparation to give the same prolonged blood levels obtained with penicillin in oil and wax and yet eliminate the objectionable features of the wax.

Bacteriological investigations conducted during the year were for the most part continuations of long-time projects. Special attention has been devoted to research on staphylococcus food poisoning, centered on the nutritional and physical growth requirements of the staphylococci for the production of the food-poisoning toxin, with the aim of developing suitable synthetic media for the production of toxins relatively free from impurities. The isolation or separation of the toxin from complex organic media has also been under study. Concurrent investigation has been under way on the identification of food-poisoning types of staphylococci as contrasted to the toxin. While this work has not progressed far enough to be conclusive, it offers distinct promise of usefulness in tracing the epidemiology of staphylococcus food-poisoning outbreaks.

Studies on the prevalence of Brucella in cheese manufactured from raw milk were conducted in the fiscal year for use in connection with hearings on standards of identity for various types of cheeses. Brucella organisms were demonstrated in approximately 10 percent of 70 samples of commercial cheeses collected in major cities from the output of all of the larger producing areas.

In the field of sanitation, research has been continued on the significance of the enterococci as indices of pollution. Studies included the occurrence of enterococci in various food products and on food-plant equipment, and the isolation of cultures from several species of animals for critical study. If the results obtained are confirmed, they will be of material assistance in determining the origin of pollution found in food products.

Pharmacological investigations have been directed at determining the safety of certain ingredients already in use or proposed for use in foods, drugs, and cosmetics. Following numerous reports of injury from cold permanent wave preparations the pharmacologists and cosmetic chemists cooperated in a study of these products. Rabbits were used to test the general toxicity and local irritation of commercial preparations, of a highly purified sample of the active ingredient, ammonium thioglycolate, and of known contaminants and decomposition products. It was concluded that the majority of the complaints were probably the result of misuse of the product and failure to follow directions.

A report in an English scientific periodical that the inclusion in the diet of dogs of flour artificially aged with minute amounts of nitrogen trichloride in the milling process produced canine hysteria or "fright disease" was promptly confirmed by Food and Drug Administration investigators. Nitrogen trichloride has been used for more than 25 years to impart useful characteristics to the dough in bread making and is permitted in the present standard. Tests with this flour on other species of animals gave negative results, but cats and rabbits fed heavily treated gluten exhibited symptoms similar to those produced in dogs by the treated flour. The milling industry and pet food manufacturers are cooperating to prevent the use of such flour in dog and cat foods. Because of its public health importance, studies of the possible effect of flour treated with nitrogen trichloride are being pressed. Up to this time no evidence of human injury has been obtained. The remaining flour-bleaching agents are currently under investigation.

Chronic feeding tests on 29 compounds were in progress during the year. Following the use of both mercuric and phenyl mercuric salts in food products, a study of their comparative storage and toxicity was begun in long-term experiments with rats. Dosages ranging from the lowest amount which would show detectable storage to the amount which would produce severe damage in the animals were used with mercuric acetate and phenyl mercuric acetate. Preliminary results show greater storage levels in and greater toxicity to the rats on the phenyl mercuric acetate.

The necessity for the use of a sweetening agent other than sugar in foods for special purposes has brought a demand for more knowledge on the chronic toxicity of available sweetening agents. Rats are being used to determine possible life-time effects of four synthetic sweetening agents. To establish a margin of safety in the use of these agents, the dosage ranges in each case from amounts equivalent to those which might be consumed by man in his daily food and drink to amounts producing clear-cut toxic effects in these animals.

Other pharmacological investigations included examination of the more important of the numerous new insecticides, intended for use on food crops, for their acute and chronic toxicity, skin absorption, and distribution and fate in the body.

Veterinary drug investigations encompassed controlled tests with poultry and studies dealing with the value of so-called alkaline medicines for hogs, for the treatment of necrotic enteritis. The investigations in the latter field thus far show essentially no difference in the treated pigs, whether or not nicotinic acid is added to the treatment, as compared with the untreated pigs. Because of the market value of swine, some difficulty was encountered in conducting these tests; the hog raisers wanted all of the sick animals to be treated, without saving out any for controls. The poultry studies, conducted with a view to seizures and prosecutions to keep worthless products from the market, included coccidiosis "remedies," anthelmintics, and preparations for the prevention and control of blackhead in turkeys. Coccidiosis claims are still involved in most of the objectionable labeling of poultry preparations.

ENFORCEMENT STATISTICS

Factory inspections made in enforcement of the Food, Drug, and Cosmetic Act totaled 13,721, in the coverage of 8,699 establishments. Official and investigational samples collected for examination in the regulatory work on domestic shipments numbered 31,485.

Food-control work received 69.4 percent of the field time, in comparison with 66 percent in 1946. The 65,000 manufacturers, shippers, and public warehouses that handle foods were accorded 11,133 inspections of 6,667 establishments; 23,774 official and investigational samples of domestic lots were collected and examined.

Drugs and devices received 23.2 percent of the field time in 1947 and 26 percent in the previous year. In this group, manufacturers of interstate products number 6,600 and 1,521 factory inspections were made of 1,244 establishments; 6,509 samples were collected and examined of interstate shipments and investigational lots.

Vitamins and food for special dietary uses, with 1,600 manufacturers, received 3.8 percent of the time of the field force, with 397 factory inspections of 335 establishments and 911 samples collected and examined.

The 900 manufacturers and shippers of cosmetics received 203 inspections of 172 establishments; 263 official and investigational samples of their output were collected and examined. The cosmetic project required 1.8 percent of the time in 1947, in comparison with 1.3 percent in 1946.

The remaining field time was devoted to work too general to classify within these groups.

Under the project system of operations, administrative determination is made at the beginning of each fiscal year of the proportion of regulatory time to be devoted to each class of product, in view of the enforcement problems presented. This schedule is kept sufficiently flexible to be readily adaptable to emergency situations which may require immediate and intensive coverage.

The following percentages of time were accorded the various food projects in 1947: Vegetables and vegetable products, 11.8; dairy products, 9.8; fruits and fruit products, 9.6; cereals, cereal products, and baked goods, 7.8; beverages and beverage materials, 7.2; fishery products, 6.2; chocolate and sugar products, 4.6; flavors, spices, and condiments, 4.2; nuts and nut products, 2.4; oils and fats, 1.2. Time devoted to the remaining projects did not exceed 1 percent for any group. The 1946 percentages of food time were: Dairy products, 10.9; cereals, cereal products, and baked goods, 10.8; vegetables and vegetable products, 9.5; fruit and fruit products, 7.7; beverages and beverage materials, 6.1; chocolate and sugar products, 5.6; fishery products, 5.5; nuts and nut products, 3.4; flavors, spices, and condiments, 2.9; meat and poultry, 1.1.

Table 2 shows the number of samples forming the basis for seizure and criminal actions, as well as the number of actions instituted during the past two fiscal years. In seizures, several violative samples representing shipments made to a consignee on different dates, or a variety of articles contained in a single shipment, are frequently combined into a single libel action. These actions are usually terminated before the end of the year, with the exception of a few in which court contests are pending. In criminal prosecution cases, each sample usually represents a single shipment which forms one count of the action. Many criminal prosecutions and injunctions instituted in one fiscal year are not scheduled for court hearings until the following year.

Types of violations alleged are mentioned in the discussions throughout the report and are summarized in the following paragraph. In the 2,197 seizure actions brought during the year, 2,588 violations were charged, and in the 555 criminal cases 748 violations were listed in the informations and indictments. These numbers exceed those for the actions because a shipment is frequently alleged to be in violation in more than one respect. For example, an article may be misbranded as to the type of ingredients it contains and also may bear false and misleading health claims.

Decomposition, insect or rodent infestation, or other filth in foods was charged in 994 of the 1,886 food seizure actions, in which 2,174 violations were alleged. Other food violations resulting in seizures in 1947 involved 219 charges of dangerous substances in the products, 25 of labeling with misleading health claims, 320 of violation of official standards, 363 of debasement or violation of professed standards, 31 of deceptive packaging, 123 of short measure, 97 of failure to bear mandatory labeling, and 2 of use of uncertified coal-tar colors. In 1946, seizures were based on 1,713 filthy or decomposed foods, 289 charges of dangerous ingredients, 20 of misbranding with misleading health claims, 227 of violation of official standards, 336 of debasement or failure to meet professed standards, 23 of deceptive packaging, 116 of shortage of weight or volume, 1 of an uncertified coal-tar color in a food product, and 40 of failure to bear mandatory labeling.

Seizures and criminal prosecution actions resulting from violative shipments of beverages and beverage materials increased to 224 in 1947 from 179 in 1946, principally because of increased actions against the use of monochloracetic acid. Import lots examined decreased from 6,859 in 1946 to 4,808 in 1947 and the lots detained dropped from 626 to 481, which reflects continued progress in the elimination of glass fragments in importations of alcoholic liquors.

Enforcement work on cereals and cereal products resulted in 255 seizures and prosecutions and 4 injunctions in 1947, in contrast to 722 and 8 in 1946. Import lots examined were 1,092 with 608 detentions in 1947, whereas 467 were examined and 390 detained the previous year.

Confectionery, sugar, and chocolate products accounted for 170 actions in 1947 and 197 in 1946, with 1 injunction request each year. Import lots examined were 1,867 and 1,489 for the 2 years, with the percentage detained differing little. Lots detained were 601 in 1947 and 464 in 1946.

Court actions for dairy products consisted of 275 seizures and prosecutions and 10 injunction requests in 1947, and 300 and 18, respectively, in 1946. Dairy importations examined were 300 and 139 lots for the current and the previous years; rejections decreased from 76 to 38 lots.

Violative fishery products leading to court actions showed an increase from 177 in 1946 to 199 in 1947, with 1 injunction in 1946. Examinations of imports increased from 4,362 to 5,681 but detentions decreased from 800 to 609.

Actions against interstate shipments of violative flavors, spices, and condiments increased from 114 in 1946 to 171 in 1947. Import lots examined rose from 2,034 in 1946 to 5,506 in 1947 and detentions from 742 to 1,186. Corresponding figures for 1945 of 1,527 and 365 indicate the sharp and continued upward curve.

Seizures and prosecutions based on violative fruits and fruit products were 266 in 1947 and 259 in the previous year. There was one injunction in 1947. Import lots examined in 1947 were 2,962, with 433 detentions, a substantial increase over the 1,593 lots examined and 395 detained in 1946 and the 1,227 and 277, respectively, in 1945.

Vegetables and vegetable products seized or forming the basis of criminal actions numbered 430, plus 1 injunction, in 1947, a slight increase over the 422 actions of the previous year. Import examinations were almost identical with 1,130 and 1,131 lots for the two years; detentions dropped to 387 from the previous year's 506.

Other domestic projects accounted for 29 actions and 2 injunction requests based on eggs and egg products, 45 plus 1 injunction on grains and feeds, 24 on meats and poultry, 89 on nuts and nut products, 66 on oils and fats, and 38 on miscellaneous food products.

The 194 drug and device seizure actions shown in table 2 involved 276 charges of violations. Dangerous substitutions of ingredients accounted for 11 seizures, 137 charges were made of false and misleading therapeutic claims, 38 of failure to bear mandatory labeling, 25 of failure to meet official compendia standards, 44 of deviation from professed standards, 4 of filth and decomposition, 1 of deceptive packaging, 15 of short measure, and 1 of the use of nonpermitted coal-tar colors. In 1946, danger to health was charged in 7 seizure actions, 230 charges were made of false and misleading claims, 63 of failure to bear mandatory label statements, 10 of filth and decomposition, 36 of violation of official compendia standards, 52 of violation of professed standards, 6 of deceptive packaging, 4 of short measure, and 3 of use of nonpermitted colors.

Total fines paid or assessed in cases pending on appeal in 1947 for violations of the Food, Drug, and Cosmetic Act were $243,697. The heaviest fine was $20,000, imposed upon a corporation and an individual for shipments of a misbranded device; as previously noted this sentence is on appeal. In 72 actions the fines were $1,000 or more. Jail sentences were imposed in 12 criminal cases involving 15 individual defendants, with sentences ranging from 30 days to 3 years and averaging 7⅔ months. The jail sentences were suspended for 10 defendants and they were placed on probation.

Records of actions terminated in the Federal courts were published in 1,570 notices of judgment issued during the fiscal year under the Food, Drug, and Cosmetic Act. Food cases were recorded in 1,100 notices and drugs and devices in 450. Cosmetic notices numbered 18, and 2 notices were issued summarizing judicial review of orders. The number of notices is always smaller than the number of cases covered because many consolidate several actions in the same notice when a single shipper is involved.

TABLE 1.—*Number and kind of samples collected or shipments inspected during the fiscal years 1946 and 1947*

	Foods		Vitamins and foods for special dietary uses		Drugs and devices		Cosmetics		Caustic poisons		Totals	
	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947
Interstate	15, 863	14, 529	922	884	9, 029	5, 855	206	192	38	19	26, 058	21, 479
Import	22, 664	26, 232	270	123	2, 360	2, 850	81	420	2	2	25, 377	29, 627
Total official	38, 527	40, 761	1, 192	1, 007	11, 389	8, 705	287	612	40	21	51, 435	51, 106
Investigational	15, 061	9, 245	61	27	1, 426	654	101	71	19	9	16, 668	10, 006
Grand total	53, 588	50, 006	1, 253	1, 034	12, 815	9, 359	388	683	59	30	68, 103	61, 112

TABLE 2.—*Summary of interstate samples on which criminal prosecutions and seizures were based and the number of court actions instituted during the fiscal years 1946 and 1947*

	Criminal prosecutions instituted				Seizures accomplished				Injunctions requested		Total			
	Violative samples		Actions		Violative samples		Actions				Violative samples		Actions	
	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947
Foods	836	988	250	395	3,338	2,462	2,458	1,886	29	20	4,174	3,450	2,737	2,301
Vitamins and foods for special dietary uses	92	126	22	49	76	120	41	110	0	[1]2	168	246	63	161
Drugs and devices	199	235	74	108	527	329	324	194	7	[1]8	726	564	405	305
Cosmetics	6	5	4	3	22	7	10	5	0	0	28	12	14	8
Caustic poisons	0	0	0	0	3	2	2	2	0	0	3	2	2	2
Total	1,133	1,354	350	555	3,966	2,920	2,835	2,197	36	25	5,099	4,274	3,221	2,777

[1] In 2 injunction actions counted in the above table as drugs, both drug remedies and foods for special dietary uses were included in the complaint.

TABLE 3.—*Import shipments during fiscal years 1946 and 1947*

	Inspected and refused entry		Inspected and released		Total	
	1946	1947	1946	1947	1946	1947
Foods	4,771	5,319	17,393	20,913	22,664	26,232
Vitamins and foods for special dietary uses	30	17	240	106	270	123
Drugs and devices	1,188	1,118	1,172	1,732	2,360	2,850
Cosmetics	46	106	35	314	81	420
Caustic poisons	0	1	2	1	2	2
Total	6,035	6,561	19,342	23,066	25,377	29,627

BIBLIOGRAPHY

The articles listed below were written by members of the staff of the Food and Drug Administration and published in outside periodicals in the fiscal year 1947:

Braun, H. A., Lusky, L. M., and Calvery, H. O.: The Efficacy of 2,3-dimercaptopropanol (BAL) in the Therapy of Poisoning by Compounds of Antimony, Bismuth, Chromium, Mercury, and Nickel. J. Pharmacol. Exp. Therap. 87: (Supp.) 119, 1946.

Callaway, J.: Current Problems in Formulating Food Standards. Food Drug Cosmetic Law Quar. 2: 124, 1947.

Calvery, H. O., Draize, J. H., and Laug, E. P.: The Metabolism and Permeability of Normal Skin. Physiol. Rev. 24: 495, 1946.

Chandler, V. L., and Shaw, R. D.: Dropping Device for Cylinder Plate Assay of Penicillin. Science 104: 275, 1946.

Chinn, B. D., and Taggart, S. R. (Bur. Venereal Diseases, D. C.); and Putnam, L. E., and Herwick, R. P.: The Treatment of Gonorrhea with Streptomycin. Am. J. Syphilis, Gonorrhea and Venereal Diseases 31: 268, 1947.

Claborn, H. V.: The Determination of DDT in the Presence of DDD. J. Assoc. Off. Agr. Chem. 29: 330, 1946.

Clifford, P. A.: Determination of DDT, Particularly in Milk and Fats, by the Schechter Procedure. J. Assoc. Off. Agr. Chem. 30: 337, 1947.

Combating Fraudulent Devices and False Claims. Arch. Phys. Med. 28: 367, 1947.

Cook, J. W., and Steers, A. W.: Detection of Fecal Matter in Food Products. I. Investigation of the Use of Trypsin and Alkaline Phosphatase Activity of Feces as a Measure of Contamination. J. Assoc. Off. Agr. Chem. 30: 168, 1947.

Crawford, C. W.: Administrative Progress of the Federal Food, Drug, and Cosmetic Act. Food Drug Cosmetic Law Quar. 2: 3, 1947.

Curtis, J. M., Umberger, E. J., and Knudsen, L. F.: The Interpretation of Estrogenic Assays. Endocrinology 40: 231, 1947.

Draize, J. H., and Woodard, G.: Le DDT Ses propriétés Ses applications. Actualites Medico-Chirurg. 12: 9, 1946.

Draize, J. H., Alvarez, E., and Whitesell, M. F.: The Percutaneous Toxicity of Thioglycolates. Proc. Sci. Sec. Toilet Goods Assoc. No. 7, May 16, 1947.

Dunbar, P. B.: Original Federal Food and Drugs Act June 30, 1906—Its Administrative Progress. Food Drug Cosmetic Law Quar. 1: 334, 1946.

Eisenberg, W. V., and Wilson, J. B.: Identification of the Monohalogen Substituted Acetic Acids as Barium Salts. J. Assoc. Off. Agr. Chem. 30: 563, 1947.

Ettelstein, N.: Application of the Dithizone Method to the Determination of Lead in Coal-Tar Colors. J. Assoc. Off. Agr. Chem. 30: 552, 1947.

Fischbach, H., Mundell, M., and Eble, T. E.: Determination of Penicillin K by Partition Chromatography. Science 104: 84, 1946.

Fitzhugh, O. G., and Nelson, A. A.: Chronic Oral Toxicity of Alpha-Naphthyl Thiourea. Proc. Soc. Exp. Biol. Med. 64: 305, 1947.

Fitzhugh, O. G., and Nelson, A. A.: The Chronic Oral Toxicity of DDT (2,2-Bis (p-Chlorophenyl)-1,1,1-Trichloroethane). J. Pharmacol. Exp. Therap. 89: 18, 1947.

Fitzhugh, O. G., Woodward, G., Braun, H. A., Lusky, L. M., and Calvery, H. O.: The Toxicities of Compounds Related to 2,3-dimercaptopropanol (BAL) with a Note on their Relative Therapeutic Efficiency. J. Pharmacol. Exp. Therap. 87: (Supp.) 23, 1946.

Harris, K. L.: An Annotated Bibliography of Methods for the Examination of Foods for Filth. J. Assoc. Off. Agr. Chem. 29: 420, 1946.

Harris, T. H.: Determination of Quaternary Ammonium Compounds in Fruit Juices. J. Assoc. Off. Agr. Chem. 29: 310, 1946.

Harvey, J. L.: Dangerous and Hypnotic Drugs—Recent Considerations with Respect to their Control under the Federal Food, Drug, and Cosmetic Act. Quar. Bul. Assoc. Food and Drug Off. of U. S. 11: 43, 1947.

Herwick, R. P.: Food and Drug Administration (Development of New Drugs). J. Am. Pharm. Assoc., Prac. Ed., 8: 157, 1947.

Hillig, F.: Determination of Water-Insoluble Fatty Acids in Cream and Butter. J. Assoc. Off. Agr. Chem. 30: 575, 1947.

Hunter, A. C.: Food Technology in the Enforcement of the Food, Drug, and Cosmetic Act. Food Technol. 1: 461, 1947.

Jorgensen, P. S.: Comparison of Several Methods for the Determination of Arsenic in Pentavalent Arsenicals Alone and in Combination with Bismuth. J. Am. Pharm. Assoc., Sci. Ed., 36: 27, 1947.

Killingsworth, F. K.: Import Controls and Problems. Quar. Bul. Assoc. Food and Drug Off. of U. S. 11: 3, 1947.

Kline, O. L.: A Human Assay for Physiological Availability. Biol. Symposia 12: 524, 1947.

Kline, O. L., and Daniel, E. P.: Biological Assay for Thiamine. Biol. Symposia 12: 52, 1947.

Kline, O. L., and Friedman, L.: Microbiological Assay Methods for Thiamine. Biol. Symposia 12: 65, 1947.

Kneeland, R. F., Jr.: Feed Labeling. Grain and Feed J. Consolidated 97: 366, 1946.

Knudsen, L. F., and Curtis, J. M.: The Use of the Angular Transformation in Biological Assays. J. Am. Statis. Assoc. 42: 282, 1947.

Larrick, G. P.: An Inspector's Viewpoint of the Importance of Mill Sanitation. Northwestern Miller 230: 3–A, April 8, 1947.

Larrick, G. P.: The Retail Druggist's Labeling Responsibility. N. A. R. D. J. (The National Association of Retail Druggists) 68: 1798, 1946.

Laug, E. P., Vos, E. A., and Kunze, F. M.: Biologic Assay of Mercury Ointments. J. Am. Pharm. Assoc., Sci. Ed., 36: 14, 1947.

Laug, E P., Vos, E. A., Kunze, F. M., and Umberger, E. J.: A Study of Certain Factors Governing the Penetration of Mercury Through the Skin of the Rat and the Rabbit. J. Pharmacol. Exp. Therap. 89: 52, 1947.

Laug, E. P., Vos, E. A., Umberger, E. J., and Kunze, F. M.: A Method for the Determination of Cutaneous Penetration of Mercury. J. Pharmacol. Exp. Therap. 89: 42, 1947.

Loy, H. W.: Physico-Chemical Assay for Riboflavin. Biol. Symposia 12: 166, 1947.

McKinnon, McKay, Jr.: A Food and Drug Official Explains His Law. Bakers Weekly, March 3, 1947.

Milstead, K. L.: Meaning of Mill Sanitation under the Food, Drug, and Cosmetic Act. Am. Miller and Processor 75: 37, 1947.

Molinas, S., and Welch, H.: The Stability of Commercial Crystallin Sodium Penicillin in Solution. J. Am. Pharm. Assoc., Sci. Ed., 36: 41, 1947.

Mundell, M., Fischbach, H., and Eble, T. E.: The Chemical Assay of Penicillin. J. Am. Pharm. Assoc., Sci. Ed., 35: 373, 1946.

Munsey, V. E.: Determination of Soybean Flour in Cereal Products. J. Assoc. Off. Agr. Chem. 30: 187, 1947.

Nelson, E. M., and DeWitt, J. B.: Biological Assay for Vitamin A. Biol. Symposia 12: 1, 1947.

Olansky, S. (U. S. Public Health Service), and Putnam, L. E.: The Effect of the Sodium Salts of Crystalline Penicillin G, Crystalline Penicillin X and Commercial Penicillins on Darkfield Positive Lesions of Syphilis. J. Venereal Disease Inform. Pub. Health Serv. 27: 178, 1946.

Ostrolenk, M., Kramer, N., and Cleverdon, R. C.: Comparative Studies of Enterococci and Escherichia Coli as Indices of Pollution. J. Bact. 53: 197, 1947.

Ostrolenk, M., and Kramer, N.: The Sanitary Significance of Flies and Other Insects in Food-Producing Establishments. The Bakers Digest 21: 62, 1947.

Oswald, E. J., and Nielsen, J. K.: Studies on the Stability of Streptomycin in Solution. Science 105: 184, 1947.

Price, C. W., Randall, W. A., Chandler, V. L., and Reedy, R. J.: Observations on the In Vivo and In Vitro Development of Bacterial Resistance to Streptomycin. J. Bact. 53: 481, 1947.

Price, C. W., Randall, W. A., and Welch, H.: The Urinary Excretion of Penicillins G and K in Rabbits. J. Am. Pharm. Assoc., Sci. Ed., 36: 19, 1947.

Pruitt, R. S.: Medicolegal Aspects of the Sale and Use of Barbiturates. J. Missouri State Med. Assoc. 44: 419, 1947.

Putnam, L. E.: Available Antibiotic Preparations and Their Toxicity. Med. Ann. D. C. 15: 482, 1946.

Putnam, L. E., Herwick, R. P.; and Taggart, S. R., and Chinn, B. D. (Bur. Venereal Diseases, D. C.): The Treatment of Gonorrhea with Streptomycin. A Preliminary Report with Cure of 4 Cases. Med. Ann. D. C. 16: 14, 1947.

Radomski, J. L., and Woodard, G.: A Survey of the Present Status of Red Squill as a Rodenticide. J. Am. Pharm. Assoc., Sci. Ed., 35: 289, 1946.

Ramsey, L. L., and Patterson, W. I.: Separation and Purification of Some Constituents of Commercial Hexachlorocyclohexane. J. Assoc. Off. Agr. Chem. 29: 337, 1946.

Randall, W. A., Price, C. W., and Welch, H.: Demonstration of Hormesis (Increase in Fatality Rate) by Penicillin. Am. J. Pub. Health 37: 421, 1947.

Randall, W. A., Welch, H., and Price, C. W.: The Effect of Serum and Organ Emulsions on Penicillin Fractions. J. Am. Pharm. Assoc., Sci. Ed., 36: 17, 1947.

Stanfill, R. C.: Resumé of Commemoration of the 40th Anniversary of the Food and Drugs Act. Quar. Bul. Assoc. Food and Drug Off. of U. S. 11: 19, 1947.

Stanfill, R. C.: Ultra-Violet Light in Food and Drug Inspection. Quar. Bul. Assoc. Food and Drug Off. of U. S. 10: 141, 1946.

Sullivan, C. C.: The Relation of Pharmacy to the Food, Drug, and Cosmetic Act. The Apothecary, April 1947.

Vincent, W.: Lack of Funds Hamstrings Food Laws (A Guest Editorial). The Denver Post, February 28, 1947.

Vincent, W.: What is Quality in Dairy Products? Ice Cream Rev., May 1947.

Welch, H., Price, C. W., and Randall, W. A.: The Effect of Renal Ligation on Serum Penicillin Levels Produced by Penicillins G and K in Rabbits. J. Am. Pharm. Assoc., Sci. Ed., 36: 23, 1947.

Welch, H., and Randall, W. A.: Present Status of Streptomycin. J. Am. Vet. Med. Assoc. 110: 175, 1947.

Welch, H., and Randall, W. A.: Sensitivity of Eberthella Typhosa to Penicillin Fractions G and X. J. Lab. and Clin. Med. 32: 190, 1947.

Welsh, L. H.: The Constitution of Acetylephedrine and Acetyl-ψ ephedrine. J. Am. Chem. Soc. 69: 128, 1947.

Wharton, W. R. M.: Original Federal Food and Drugs Act of 1906—Its Inspection Evolution. Food Drug Cosmetic Law Quar. 1: 348, 1946.

Wharton, W. R. M.: Wartime and Postwar Food and Drug Adulteration. Food Drug Cosmetic Law Quar. 1: 457, 1946.

White, W. B.: Addition of Chemical Substances to Food. Quar. Bul. Assoc. Food and Drug Off. of U. S. 10: 127, 1946.

White, W. B.: A. O. A. C. Methods of Analysis. Food Drug Cosmetic Law Quar. 1: 442, 1946.

White, W. B., Price, C. W., Klein, A. K., and Wichmann, H. J.: Soil and Plant Take-up of Selenium from Spraying Orange Groves. J. Assoc. Off. Agr. Chem. 29: 349, 1946.

Wildman, J. D., and Clark, P. B.: Some examples of the Occurrence of Machinery Slime in Canning Factories. J. Assoc. Off. Agr. Chem. 30: 582, 1947.

Wilson, J. B.: Determination of Quaternary Ammonium Compounds in Foods. J. Assoc. Off. Agr. Chem. 29: 311, 1946.

SECTION SIX

BUREAU OF EMPLOYEES' COMPENSATION

INTRODUCTION

This report, covering the first year of operations of the Bureau of Employees' Compensation, is also the thirty-first annual report of operations relating to administration of Federal workmen's compensation legislation. Reports of such operations for prior years were made by the former United States Employees' Compensation Commission.

The functions of the present Bureau date from September 7, 1916, with the approval of the act providing compensation for civil employees of the United States who suffer injury in the performance of duty (5 U. S. C. 751). Some 10 years later this function was enlarged by the enactment of the Longshoremen's and Harbor Workers' Compensation Act, approved March 4, 1927 (33 U. S. C. 901), which provided workmen's compensation protection for employment in private enterprise subject to exclusive Federal jurisdiction.

These laws, applicable respectively to public and private employment, were subsequently extended with and without modification to employments other than those originally covered. The act of May 17, 1928 (45 Stat. 600), made the Longshoremen's Compensation Act applicable to private employment in the District of Columbia with certain specified exemptions, thus making the latter the District Workmen's Compensation law.

Preparations for national defense early in 1941 and subsequent prosecution of the war effort involved large-scale employment of American citizens and nationals of other countries in civilian employments outside the United States. In order to provide protection for employees of contractors with the United States engaged in such work and to safeguard the interest of the Government by providing uniform insurance rates and policies for such protection, the Longshoremen's Compensation Act, with certain modifications, was made applicable to such employment. This was accomplished by the so-called Defense Bases Act, approved August 16, 1941 (42 U. S. C. 1651; 1701).

The act of December 2, 1942, in addition to amending the Defense Bases Act, made workmen's compensation principles applicable to cases of injury resulting from war-risk hazards involving employees subject to the Defense Bases Act and also provided for the accrual of wages of such employees in case of detention by the enemy and disbursement of part of such accruals to dependents of the missing person.

Similarly, the provisions of the Federal Employees' Compensation Act were extended to cover other than civil employees in the regular Federal establishments. With the advent of the large employment program carried out under Emergency Relief Acts during the period 1933 to 1941 it was necessary to provide for those injured or killed in the course of such employment. The Federal Employees' Act, in substantially modified form, was made applicable to such employment by provisions included in the act of February 15, 1934 (5 U. S. C. 796).

During the 31 years of its existence the Bureau with its small administrative staff has serviced nearly 6,000,000 cases involving the injury or death of employees in public and private employment. Benefits paid to public employees and expended for their medical care during this period exceeded $200,000,000. In addition to this the Bureau supervised the settlement or adjudicated claims involving the payment of $110,000,000 by private employers or their insurance carriers for disability and death benefits to employees in employments covered by the Federal compensation laws. The administrative cost of adjudicating claims under the Federal Employees' Act has averaged less than 6.5 percent of the benefits paid. This low rate for claims expense is approximately one-half the rate expended for like service by private insurance carriers in the workmen's compensation field.

JURISDICTION OF THE BUREAU

Under a delegation of authority by the Administrator, approved July 16, 1946, the Bureau of Employees' Compensation administers the several Federal laws providing workmen's compensation benefits for employees in certain employments within Federal jurisdiction, as follows:

1. Act of September 7, 1916 (5 U. S. C. 751), which is applicable to:

(*a*) Civil employees of all agencies and instrumentalities (including corporate agencies) of the United States.

(*b*) Employees of the Government of the District of Columbia.

(*c*) Officers and enlisted personnel in the Reserve Corps of the Army, Navy, and Marine Corps while on active duty or engaged in authorized training in time of peace.

(*d*) Commissioned personnel of the United States Public Health Service, including Reserve officers.

(*e*) Members of the Coast Guard Auxiliary and Temporary reservists.

(*f*) Student nurses under the Federal nurse training program on duty in Federal hospitals.

(*g*) Employees of the Menominee Indian Mills.

(*h*) Officers and members of the crew of vessels operated by the Maritime Commission or the War Shipping Administration prior to March 24, 1943.

2. Act of February 15, 1934 (5 U. S. C. 796), and subsequent enactments extending the Act of September 7, 1916 (under certain limitations and conditions), to:

(*a*) Employees of the Civil Works Administration.

(*b*) Enrollees in the Civilian Conservation Corps.

(*c*) Employees of the Work Projects Administration.

(*d*) Youth workers and trainees under the National Youth Administration.

(*e*) Certain employees of State Emergency Relief Administrations.

(*f*) Japanese internees and refugees under jurisdiction of the War Relocation Authority.

3. Act of March 4, 1927 (33 U. S. C. 901), which is applicable to longshoremen, ship repairmen, and others (except the master or members of the crew), engaged in maritime employment upon the navigable waters of the United States.

4. Act of May 17, 1928 (45 Stat. 600), which makes the Longshoremen's Compensation Act of March 4, 1927, applicable to persons in private employment in the District of Columbia.

5. Act of August 16, 1941 (42 U. S. C. 1651; 1701), which is applicable to:

(*a*) Employees of Government contractors engaged in public works outside the continental United States.

(*b*) All persons employed at a military, air, or naval base outside the continental United States.

6. Act of December 2, 1942 (42 U. S. C. 1701), which provides—

(*a*) Certain benefits for disability, death or detention due to enemy action in the case of employees of Government contractors subject to the Act of August 16, 1941.

(*b*) Reimbursement of contractors, insurance carriers, and compensation funds for losses on account of certain payments made for injury or death caused by a war-risk hazard in the case of employees described under (*a*).

7. Act of July 30, 1947 (Public Law 271, 80th Cong.), authorizing continuance of Civilian War Benefit payments.

OPERATIONS UNDER THE UNITED STATES EMPLOYEES' COMPENSATION ACT OF SEPTEMBER 7, 1916

New injury reports.—Although there has been a distinct downward trend in the number of injuries reported in the postwar period, the current rate of reporting, as compared with prewar years, remains at an appreciably high level. In the three years prior to the hostilities of World War II an annual average of 42,000 cases was experienced. During the fiscal year 1947 over 90,000 injury reports were received, over twice as many as the normal prewar work-load.

Employment coverage.—With civilian employment receding in most Federal executive departments and independent agencies, total employment coverage under the Federal Act nevertheless was still over the 2,100,000 mark as of June 30, 1947. With a remarkable correlation between work casualties and employment coverage one might reasonably expect that the work load of the Bureau would react accordingly, and decrease significantly. In general this is true, but there is a substantial lag in the effectiveness of the relationship, and it appears that the work load for 1948, and possibly for a good period in 1949, will remain not far from the current level.

Reopened cases.—Anticipation of a continued high work load level appears even more likely when one considers the problem of the reopened case. Under the Federal Employees' Act, with its unlimited aggregate maximum in any one case, an injury claim is potentially never closed so long as a claimant lives. Claims for additional medical examinations or care, and requests for additional compensation benefits based upon alleged recurrences, or loss of earning capacity due to occupational injuries, constitute a material and often problematical phase of the work of the Bureau. In this regard the Bureau's problem differs markedly from that of most State administrative bodies or that of insurance carriers handling workmen's compensation where as a general practice cases are closed permanently upon payment of the award. In the course of a year many thousands of Federal injury cases after initial handling and closure require further servicing or action. Approximately 1,500 of these cases show cause for additional compensation because of subsequent disability related to the original injury, and a substantially greater number require further medical care. With over 650,000 injury reports received during the past 5 fiscal years the importance of this phase of compensation administration can hardly be over-emphasized.

Active cases.—All cases close eventually, but there are two classes of cases which seem to remain on the rolls almost interminably. These are the fatal cases with dependents and the permanent injury cases or those with prolonged loss of earning capacity caused by the work accident. Close to 5,000 fatal cases were on the compensation rolls as of June 30, 1947, and nearly 3,500 permanent or long-continuing cases were receiving regular benefits. At least 35 percent of these fatalities occurred prior to 1935; and nearly as large a proportion of the permanents are equally of long standing. The low remarriage rate of widow beneficiaries in such cases is the principal reason for long continued activity of the former, while the physical and occupational limitations of the latter account for the longevity of the cases involving payment of disability benefits. Other incomplete cases, including those currently being adjudicated, raised the total of active cases as of June 30, 1947, to approximately 27,000.

Accident prevention.—In dollar outlay alone, excluding property damage, compensation expenditures for the fiscal year 1947 was $13,711,925. Chargeable days lost due to accidents total over 4,000,000 days per year. These significant facts stress the importance of greater effort to take advantage of the possibility of savings through prevention of accidents.

That savings have already been made is manifest from the record. Increased and sustained attention to accident prevention in the Federal service brought most occupational casualty rates to an all-time low last year. The frequency of disabling injuries was down to 9.2 per million man-hours worked, and the direct cost of accidents receded to $4.78 per employed person. With an employment level well over 2,100,000 workers, 97 percent of the workers finished the year without a reportable injury under the Federal Compensation Act. As a result of safety efforts, the probability of sustaining a disabling injury today in the Federal service is at least 25 percent less than that for prewar years.

Today organized safety programs are in operation in 19 executive departments and independent agencies, as against 8 a decade ago. Most recently organized are those of the Veterans' Administration and the Post Office Department. The Bureau, pursuant to statutory direction, is actively engaged in assisting the various agencies in eradicating unsafe working conditions and minimizing the prevalence of unsafe work acts of employees. Since 1936 the services of a safety director and a small staff have been available for this purpose. Safety investigations are carried out daily throughout the year, and improvements recorded have been substantial. Precise casualty records are maintained for each of the programs, and factual brochures are distributed with detailed analyses designed to facilitate progress in accident prevention. The Bureau's Safety Bulletin, issued quarterly, is in its twelfth volume, and reaches thousands of key supervisors and safety engineers actively engaged in on-the-job safety. This Bulletin was awarded a certificate of merit by the National Safety Council as 1 of 15 outstanding publications in promoting safety ideas for the benefit of employees. Safety investigations and consultations approached 1,000 last year, even though diminished funds necessitated the curtailment of field work of safety consultants for at least 3 months of that period. That accident prevention, properly administered, is profitable, few will deny. That it is antecedent to compensation in importance, and preferable to it as far as the worker is concerned, is all too apparent, though frequently overlooked.

Medical care and rehabilitation.—Probably so long as man must work industrial accidents will always present a problem. Accident prevention, however effective, will still be limited by human and economic adaptability. Labor turn-over, new processes, changes in technology, and organizational pitfalls all bring or tend to bring accidents in their wake. When they occur there is but one alternative, that of expeditious recovery for the injured and his restoration into society commensurate with his aptitudes and abilities.

The Federal Compensation Act wisely places no limitation on medical and hospital services needed as a result of accidental work injuries. Wherever practicable these services and supplies are furnished by United States medical officers and hospitals. For this purpose the hospitals and dispensaries of the United States Public Health Service are available without cost, and to a limited extent also hospitals under the control of the Bureau of Indian Affairs. The Army and Navy hospitals are generally used only for the treatment of civilian employees of the War and Navy Departments, and are reimbursed from the compensation fund at the rate established for such service.

In localities where the services of the United States medical officers are not available, medical treatment is furnished by private physicians designated by the Bureau, of which some 4,000 have been selected throughout the United States. These physicians are paid a reasonable fee by the Bureau for services actually rendered. A total expenditure of $2,238,847 was made during 1947 from the compensation fund for medical treatment furnished by public and private facilities and for the transportation of employees incident to receiving such treatment.

Rehabilitation for the injured employee with a permanent physical handicap naturally begins with physical restoration of the injured, and in many cases it commences at the very start of physical recovery. The Bureau cooperates with Federal and State Rehabilitation agencies by referring to them injured Federal employees in need of specialized occupational rehabilitation. At the close of the fiscal year 1947 referrals were being issued at a rate of 2,000 per annum. Not a few of these were amputees, although most were coping with functional disabilities of members or other parts of the body.

Third party liability.—When accidents occur for which a third party other than the United States appears legally liable, action is initiated by the Bureau for the collection of damages. Last year gross recoveries made in 680 cases exceeded $1,000,000, and after deducting court costs and attorney fees there remained a net recovery of $840,000. Refunds to the Bureau from such recoveries totaled $130,000, and the balance remaining in the hands of the beneficiary was set up in the records of the Bureau as a credit against future benefits in the injury cases involved.

Costs.—Difficult as it is to ascertain the administrative cost of any undertaking, a reasonably valid index for the administration of the Federal Employees' Act (as extended to relief and foreign employment) may be calculated by taking the costs properly assessible to such act and comparing them with direct benefit expenditures. During the fiscal year 1947 the Bureau expended $959,000 for administration of this act and in the same period disbursed $15,033,717 for benefits. The administrative costs were therefore only 6.4 percent of such benefits. The figure for administrative costs during the entire 31 years of administration is calculated to be no greater than 6.5 percent.

Applications for review filed with Board of Appeals.—An appellate procedure was established in connection with the creation of the Bureau effective July 16, 1946. Under such procedure application may be made to the Employees' Compensation Appeals Board in the Agency for review of a decision by the director of the Bureau in respect to a claim of an employee of the United States or of the Government of the District of Columbia.

During the fiscal year 1947 the Bureau received notice from the Appeals Board of the receipt of 64 applications for review. Answers were filed by the Bureau in 46 such cases, and in the remaining 18 cases answers were in process of completion. Notice of decisions by the board were received in respect to 25 such cases. In 15 such cases review was denied for lack of jurisdiction, in 5 cases the case was remanded for further action, and in the remaining 5 cases the action of the Bureau was sustained. In 5 other cases the Bureau was advised that the appeal was withdrawn.

OPERATIONS UNDER EMERGENCY RELIEF ACTS

Over 1,730,000 injury cases were reported under the various emergency relief acts. Included are nearly 16,000 fatal cases. Compensation coverage for such employment began with the Civilian Conservation Corps Act of March 31, 1933, and was continued by the act of February 15, 1934, for the Federal Civil Works Administration.

It was in 1935, however, that the full force of these emergency relief acts was first felt in the operations of the Bureau. With the emergence in 1935 of the Works Progress Administration and its adjunct, the National Youth Administration, the next seven years saw an average of 235,000 injury cases per year. Other small groups were covered under emergency situations. All told, over 1,730,000 injury reports were processed. Not until the fiscal year 1943 was there any sharp decline in compensation work-load arising from these activities, and when it came it was over-balanced by peak war-time civilian casualties under the regular Federal Act.

For the most part the books may appropriately be closed for this activity so far as workmen's compensation adjudication is concerned. Nevertheless as of June 30, 1947, there remained 3,294 open cases in the files of the Bureau relative to operations under the various emergency relief acts. Of this number 2,570 cases, or 78 per cent, represent instances in which beneficiaries of fatally injured workmen are receiving current compensation payments. The remaining 724 nonfatal cases are mostly of a permanent or long-continuing nature. The administrative duties of the Bureau in effecting prompt compensation payments in these fatal and seriously injured nonfatal cases will continue for several years. The duties of supervising periodic medical examinations, handling reopened cases, making adjustments and additional awards, completing recoveries from third parties, as well as those of answering inquiries from interested parties will continue to be of appreciable importance.

OPERATIONS UNDER THE LONGSHOREMEN'S AND HARBOR WORKERS' COMPENSATION ACT, AND EXTENSIONS THEREOF

Coverage.—The Longshoremen's and Harbor Workers' Compensation Act, approved March 4, 1927, as amended (33 U. S. C. A. 901 et seq.), is the only workmen's compensation law applicable to persons engaged in private employment who are subject to exclusive Federal jurisdiction. When enacted in 1927, it was applicable only to employees engaged in maritime employment upon the navigable waters of the United States—such as longshoremen, ship repairmen, service men, and other maritime employees. Excluded from the act are the master and members of the crew of a vessel, and persons engaged by the master to load, unload, or repair a vessel under 18 tons net. The act is administered by the Bureau through deputy commissioners in thirteen compensation districts comprising the United States, and the Territories of Hawaii and Alaska. For geographic areas served by deputy commissioners, see 20 C. F. R. chapter I, subchapter C, section 31.2.

By the act of May 17, 1928, as amended (45 Stat. 600; D. C. Code 36–501), the Longshoremen's Act, with certain modifications, was made applicable to private employers and employees as the District of Columbia Workmen's Compensation law. The act is administered locally in the District by a deputy commissioner of the Bureau.

By the act of August 16, 1941, as amended (42 U. S. C. 1651 et seq.), the Longshoremen's Act, with modifications, was made applicable to employees of private employers engaged, pursuant to contract with the United States, in the performance of work outside the United States. This extension of the Longshoremen's Act is known as the Defense Bases Act. It gave protection to employees who were employed at the areas leased from Great Britain, or employed upon lands occupied or used for military or naval purposes in the Territories and possessions of the United States, or employed under "public works" contracts at various places throughout the world. For description of the geographic areas covered by the field offices of the Bureau under the Defense Bases Act, see 20 C. F. R. chapter I, subchapter E, section 51.2.

The Longshoremen's Act, in part, was used in the act of December 2, 1942 (42 U. S. C. 1751 et seq.), to provide benefits for employees of

Government contractors, and certain other employees, suffering injury, death, or detention as the direct result of the war. This act also provided for the relief of dependents of employees detained by the enemy.

For general description as to administrative organization, procedures, forms, etc., in respect to the Longshoremen's Act, and the several extensions thereof, see 20 C. F. R., parts 01 to 03, inclusive.

Insurance carriers and self-insurers.—In addition to the adjudication of claims under the Longshoremen's Act and its extensions, the Bureau also (1) grants authority to certain employers to act as self-insurers in respect to their compensation liability, and (2) authorizes insurance companies to write workmen's compensation insurance under such act and its extensions.

Under the Longshoremen's Act at the end of the fiscal year, there were 269 authorized self-insurers (a decrease of 13 from the previous fiscal year); under the District of Columbia workmen's compensation law, there were 70 self-insurers at the end of the fiscal year (the same as the previous fiscal year); and under the Defense Bases Act, there were 20 employers authorized as self-insurers at the end of the fiscal year (a decrease of 2 from the previous fiscal year).

In respect to authorized insurance carriers there were, under the Longshoremen's Act, 261 carriers authorized at the end of the fiscal year (an increase of 21 over the previous year); there were 79 carriers so authorized under the District of Columbia workmen's compensation law (a decrease of 4 from the previous year); and in respect to the Defense Bases Act at the end of the fiscal year, there were 44 carriers having such authority (the same as the previous year).

The Bureau in considering an applicant for authority to write insurance concerns itself principally with the legal sufficiency of the Statutory and charter authority of the applicant, the applicant's financial responsibility, the history of its operations, and with the legal sufficiency of the forms of policies, endorsements, and other papers used in the course of its business. Authorizations are on a yearly basis.

In respect to applicants for the privilege of self-insurance, the elements chiefly observed are the financial responsibility of the applicant, the kinds of employment in which employees are engaged and the hazards thereof, and the past experience of the employer in respect to industrial accidents. Security for the payment of compensation is required of all self-insurers, and the amount of this security is modified from time to time as conditions change affecting the extent of liability of the employer.

Judicial review and summary of court decisions.—The decisions of the deputy commissioners under the Longshoremen's act, and extensions thereof, are not reviewed administratively by the Bureau. Such decisions are, however, subject to judicial review by the Federal courts.

Judicial review is limited to questions of law; determinations of fact, when supported by evidence in the record, cannot be disturbed by the courts.

The employee or the employer may seek judicial review of a compensation order. The filing of a review proceeding by the employer does not automatically stay payments of compensation; such stay may be granted by the court only upon the basis of a showing of irreparable damage to the employer.

Since the effective date of the Longshoremen's Act (July 1, 1927), some 805 proceedings were filed seeking judicial review of compensation orders under that act in its admiralty application. Under the extension of that act as the District of Columbia workmen's compensation law (effective July 1, 1928) 292 such proceedings were filed; and under the Defense Bases Act extension (effective August 16, 1941) there have been 49 such proceedings.

On July 1, 1946, there were pending 25 cases in the district courts of the United States involving the Longshoremen's Act. During the fiscal year 19 new cases were filed and 24 cases disposed of, leaving 20 cases pending on June 30, 1947. Five Longshoremen's Act cases were appealed to the United States Circuit Courts of Appeals, none were disposed of, and 6 cases remained undecided on June 30, 1947.

In respect to the District of Columbia workmen's compensation law, 4 cases were pending on June 30, 1946, 3 new cases were filed, and 7 cases disposed of, leaving no cases pending June 30, 1947. On July 1, 1946, 1 case was pending in the United States Court of Appeals for the District of Columbia, and during the fiscal year no cases were appealed, and 1 case disposed of, leaving no cases pending on June 30, 1947.

In respect to the Defense Bases Act, 6 cases were pending July 1, 1946, 1 new case was filed during the fiscal year, and 5 cases disposed of, leaving 2 cases pending June 30, 1947. Under such act, 1 case was appealed to the United States Circuit Court of Appeals, none were disposed of, and 1 case remained undecided June 30, 1947.

The following is a summary of the more important decisions under the Longshoremen's Act or extension of that act:

In *Cardillo* v. *Liberty Mutual Insurance Company*, 330 U. S. 469, the United States Supreme Court on March 10, 1947, reversed the decision of the United States Court of Appeals for the District of Columbia, and thereby sustained an award under the District of Columbia workmen's compensation law. The importance of the decision lies in the finality and conclusive effect to be given to an inference drawn by a deputy commissioner. If an inference so drawn "has substantial roots in the evidence and is not forbidden by the law," it will be given conclusive effect. The Court sustained the jurisdiction of the deputy commissioner to apply such act, even though the *locus* of employment and injury were outside the District of Columbia. The deceased employee had worked in Quantico, Va., for an electrical contractor for about 3 years prior to his death; he died as the result of a highway accident while returning home from work at the end of the workday. The employment contract required the employer to "furnish transportation" from Washington, D. C., to the place of work. The employee had previously worked in the District, and he resided there. The Supreme Court supported jurisdiction under such act, holding that there remained a "substantial connection between the District and the particular employer-employee relationship", and the District had a "legitimate interest" in providing compensation for its residents injured outside the District. The employer's contract to "furnish transportation" was implemented by the payment of $2 per day to employees, a sum based upon cost of rail transportation. The money was used by the employee to defray the expenses of operating a car pool with other employees. The Court held that transportation may become an incident of the employment, if the employer should merely defray the cost of transportation (as distinguishing from furnishing means of transportation).

In *Lehigh Valley Railroad Co.* v. *Lowe*, 68 F. Supp. 753 (Dist. Ct. N. J.), in denying an application for stay of payments of *pendente lite* the court refused to hold that the inability of the employee to repay the compensation, if the employer should prevail, would constitute "irreparable damage." A similar application for similar reasons was denied in *Pioneer Engineering Co.* v. *Cardillo*, 68 F. Supp. 743.

In *Pioneer Engineering Co.* v. *Cardillo*, 71 F. Supp. 866 (Dist. Ct. Pa.), the court held that the amount of wages received by claimant subsequent to date of injury is not conclusive as to the claimant's wage-earning capacity.

In *Hawaiian Dredging Co.* v. *Lowe* (Dist. Ct. N. Y.), the court sustained an award to a widow holding in effect that although the parties could not validly be married in New York where they lived, they did during a short visit to the District of Columbia become man and wife, by reason of their temporary cohabitation there. (The parties spent only about 10 days in the District.)

In *Joseph Ottenstein* v. *Britton*, 160 F. (2d) 253 (U. S. C. A. Dist. of Col.), an award of death benefits was affirmed. In this case the deceased was a minor child who during summer vacation and after school hours worked to help support himself and his mother. The employer contended that the mother was better off financially after the son's death, in view of certain increases in her own salary (she was employed) and because she had taken a roomer to help share expenses. The court, however, held in effect that at the time of death the son's wages were a necessary part of his and his mother's living expenses, and that increases in cost of living, income taxes, etc., offset the effect of any salary increase the mother may have received.

In *Hurley* v. *Lowe* (Dist. Ct. Dist. of Col.), the court sustained the determination of the deputy commissioner that the death of the employee, an attorney, resulting from a fall while on a business trip for his employer and during an interval when the employee was having dinner with his parents and was taking his father down a stairway to a lavatory, did not arise out of and in the course of the employment.

In *Lehigh Valley Railroad Co.* v. *Lowe* (Dist. Ct. N. J.), the court upheld an award of compensation to a "lighter captain," thus affirming the determination of the deputy commissioner that such employee was not a master or a member of a crew of a vessel.

In the case of *Republic Aviation Corp.* v. *Lowe*, 69 F. Supp. 472 (Dist. Ct. N. Y.), the court in a lengthy opinion, reviewing the scope of the so-called Defense Bases Act (42 U. S. C. 1651 *et seq.*), upheld the jurisdiction of the deputy commissioner to award compensation for the death of a test pilot at Ia Shima. The employee had been employed under a "service" contract calling for supervision of instruction in, and assistance with the assembly, operation, servicing, repairing, etc., of aircraft. It was held that the deceased was engaged in "public work" within the statutory definition (42 U. S. C. 1651b). The opinion deals at length with such definition.

In *McTaggart* v. *Lowe*, 69 F. Supp. 101 (Dist. Ct. N. J.), the court refused to disturb the exercise of discretion by the deputy commissioner, in the latter's refusal to excuse the employee's failure to give timely written notice of injury.

In *Suwannee Fruit and Steamship Co.* v. *Lawson*, 68 F. Supp. 616 (Dist. Ct. Fla.), the court stated that the term "previous disability," as used in section 8 (f) of the Longshoremen's Act in respect to limiting the employer's liability in so-called "second injury" cases, does not refer solely to previous disability from "industrial" accident, but includes disability from natural and other causes. The decision conflicts with *National Homeopathic Hospital Association* v. *Britton*, 147 F. (2d) 561, cert. den. 325 U. S. 857. The case is now on appeal.

In *Fidelity and Casualty Co. of N. Y.* v. *Voris* (Dist. Ct. Tex.), in sustaining an award, the court held that a determination by a jury in an action in a state court is not *res judicata* in respect to a proceeding for compensation under the Longshoremen's Act.

In *Bethlehem Steel Corp.* v. *Parker*, 72 F. Supp. 35 (Dist. Ct. Md.), an award was sustained in a case in which the deputy commissioner excused the employee's failure to give statutory notice of injury. The reason for excusing the failure was that disability from injury arose subsequent to the termination of the statutory period for the giving of notice of injury, and the employee had no opportunity to know within the 30-day statutory period that his disability was related to his injury.

The case involved the element of "latent" disability, and proper statutory construction in such cases. The case is now on appeal.

In *Wetzel* v. *Britton* (Dist. Ct. Dist. of Col.), the court upheld the action of the deputy commissioner in rejecting a claim for compensation upon the ground that an injury sustained by an employee during lunch time and while the employee is away from the industrial premises, does not arise out of and in the course of employment. This case is now on appeal to the United States Court of Appeals, District of Columbia.

In *Bituminous Casualty Co.* v. *McManigal* (Dist. Ct. Ind.), the court set aside an award upon the ground that there was no evidence to support the finding of injury upon the navigable waters of the United States—a jurisdictional requirement. In this case the deceased when last seen had stated an intention of going upon the vessel where he was employed. There was no direct evidence that he reached the vessel, the deputy commissioner having relied upon an inference that the deceased carried out his intention, plus the fact that the body was found in the river. This inference and fact were deemed insufficient to establish proper *locus* of injury.

In *Pittsburgh Steamship Co.* v. *Brown* (Dist. Ct. Ill.), it was held that the presumption of the existence of statutory jurisdiction (sec. 20 of the act) does not apply where the court grants a trial *de novo*, the court refusing to recognize the jurisdiction of the deputy commissioner because the court held that the *locus* of injury was not upon navigable waters. The court refused to consider the evidence taken before the deputy commissioner in respect to the jurisdictional question, and had no evidence in respect to any fact alleged in the complaint. The case is now on appeal.

In *Tingen* v. *Britton* (Dist. Ct. Dist. of Col.), the court sustained an award to a widow which had been challenged by the carrier on the ground that as a matter of law the widow was not dependent upon the deceased and was living apart not through the husband's fault. The parties were living apart (the husband in Washington, D. C., the wife in New York, N. Y.) because of wartime conditions, including housing shortage, etc. This kind of separate living arrangement was held not to constitute a "living apart" in the statutory sense, as no matrimonial offense was involved.

In *Casualty Reciprocal Exchange* v. *Britton* (Dist. Ct. Dist. of Col.), an award to an employee was sustained in a case contested on the question of time limitations. The employee had frozen parts of his feet while working on a roof during cold weather, but continued to work without loss of pay. This he did for over two years, until the condition of his feet made further work impossible. Thereupon he filed claim for compensation which the employer opposed on the ground that the claim was filed more than one year after the injury. It was contended in support of the award that the year limitation did not begin to run until "compensable" injury occurred; that is, until the employee started to lose pay and had something to claim. The court sustained this construction of the act as against the employer's contention that only in "latent" disability cases is the statutory time limit extended, and that this employee knew of his disability and the cause from its inception.

New injuries.—Reports received by the Bureau in 1947 cover 126,604 work injuries. Although many of these entail disability of only a minor nature, and a large proportion of them recover within the statutory 7-day waiting period, others are far more serious, and frequently permanent in extent. That this is so may be seen by the fact that in the fiscal year 1946 at least 2,205,576 days were lost due to work accidents, and it is probable that the final determination for 1947 will be almost as high.

Active cases.—On June 30, 1947, there was a total of 10,774 nonfatal and 1,350 fatal cases open in the offices of the 13 compensation districts. In 3,373 nonfatal cases and 1,130 fatal cases, compensation was being paid. In the nonfatal cases which were open, compensation paid to beneficiaries to June 30, 1947, amounts to $5,798,170. The future compensation payable in such cases is estimated to be $5,234,406, indicating a total compensation cost of $11,032,576 for 10,774 nonfatal cases, or $1,024 per case.

The 1,130 fatal cases upon which payments were being made at the close of the fiscal year 1947, include 101 cases approved during that year. The ultimate total cost of the 1,350 fatal cases, including evaluations on pending cases, is estimated to be $9,000,450, or $6,667 per case. The total amount of compensation payable in the 12,124 nonfatal and fatal open cases is evaluated at $20,033,026.

Hearings; field investigations; medical examinations.—During the fiscal year 1947, deputy commissioners in the 13 compensation districts completed 667 formal hearings relative to the adjudication of compensation cases. Of the 667 completed hearings, 570 were completed at 1 session, 68 required 2 sessions, and only 29 necessitated 3 or more formal sessions. On June 30, 1947, there were 136 cases on the hearing docket. During the year, 14,013 informal conferences were held. At these informal conferences, agreements and decisions were reached making it possible with few exceptions to adjudicate these cases without the expense of a formal hearing. Such procedure greatly reduced the number of formal hearings which ordinarily would have been required. During the year it was found necessary to conduct 379 field investigations and 7,752 medical examinations were ordered by the deputy commissioners.

Defense bases coverage.—The so-called Defense Bases Act of August 16, 1941, brought world-wide defense construction and related contractor activities under the scope of the Longshoremen's and Harbor Workers' Act, as amended. In order to provide effective administration of the law, it was necessary to arrange appropriate local administrative facilities where a large number of workmen was involved. However, from the start it was realized that this emergency undertaking might best be accomplished with a few carefully chosen operating facilities, and administrative plans were made accordingly.

These plans included use wherever practicable of existing field offices in the United States for the direction of operations in areas outside the continental limits. Other than at the headquarters offices for the Caribbean, Pacific, and Southwest Pacific compensation districts, with headquarters respectively in San Juan, Honolulu, and Manila, the small staff of the Bureau assigned to duty outside the United States was limited to technical personnel. Arrangements were made with military authorities to use their local facilities when practicable for clerical assistance. This practice resulted in substantial savings in administrative costs.

Case loads.—In less than 6 years time a total of 397,210 injury cases was reported, including a total of 975 fatal cases, as of June 30, 1947. Most of the cases originated in the Caribbean District and Newfoundland. Impressive numbers were reported from other Territories, however, such as the Pacific District with 32,000 cases, Alaska with 22,000, Canada with 27,000, and Bermuda with 19,000 cases.

During the fiscal year 1946 reported cases fell to a low ebb, only to rebound by June of 1947 to a rate of 21,000 per annum, with indications of higher totals for 1948. The kinds of cases, their causes, and coats were reviewed in last year's Annual Report. In general the same relationships hold for cases reported during 1947, about the only difference being one of relative location where the accidents occurred. In view of this, such detail is omitted from this report.

War-risk hazards cases.—Public Law 784, approved December 2, 1942, placed upon the Bureau the responsibility for the payment of benefits for injury, death, or detention of employees of contractors with the United States and certain other persons, where such injury or detention was proximately the result of a war-risk hazard.

Benefits provided were substantially those included under the Longshoremen's Act, except for detention by the enemy. Detained employees were credited with wages for the period of detention. During their absence the Bureau was authorized to disburse up to 70 percent of the current wage for the support of dependents. The remaining 30 percent was held in trust for the detained employees and paid to them upon repatriation. The total number of detention cases serviced by the Bureau to June 30, 1947, is 1,412. Accumulative payments, including wage accruals, made in these cases as of June 30, 1947, amount to $11,213,737, of which $3,585,466 refers to the fiscal year 1947.

The Bureau has received claims aggregating $1,332,855 from employers and insurance carriers for reimbursement of war-risk losses arising out of the injury or death of contractors' employees. Adjudication of such claims involved the examination of records of the claimants covering each individual case record and determination if paid and incurred liability and the claims expense related thereto.

Applications from employers and insurance carriers for reimbursement for war-risk losses are being audited currently and reserves determined for outstanding liabilities.

Expenses of administration.—The appropriation for administrative expenses of the Bureau covers the cost of administration of five laws, and therefore the cost of this law cannot be determined with exactness. A number of employees in the office of the Bureau have duties connected with the administration of each law and the proportion of the salaries paid to these employees which may be properly chargeable to the Longshoremen's and Harbor Workers' Compensation Act can only be approximated. It is estimated that the expense of administering this law, however, during the fiscal year 1947 was $650,492. Of this amount it is estimated that $506,500 was for domestic coverage of the act and $143,992 for the coverage of the act as extended to foreign areas. The largest single item of expense was for the payment of salaries to employees engaged in the administration of the law, the sum of $541,260 having been charged to this purpose. Other principal expenditures charged to the administration of this law are $18,713 for traveling expenses of personnel; $11,937 for communication service; $27,093 for rents and utilities for field offices; $7,256 for printing and binding; and $37,500 for other contractual services.

District of Columbia workmen's compensation coverage.—Although precise information is not available regarding the number of employees of private industry in the District of Columbia, it appears that close to 215,000 such workers are covered by the District of Columbia Compensation Act administered by the Bureau.

New injuries.—During the fiscal year 1947 reports of 27,610 injuries were received, including 45 fatal cases, representing a 17-percent increase over the total for 1946. Undoubtedly reflecting increased industrial activity, the closing quarter of the year saw a 14-percent advance over the previous quarter for the construction industry, while manufacturing experienced a similar increase; transportation jumped 12 percent, and utilities moved ahead 6 percent. Most of the other industrial classifications retained their previous levels, higher than those for 1946. A total of 463,588 injuries, including 1,063 fatalities, has been reported under this law during 19 years it has been in operation.

Active cases in 1947.—Although in a very large percentage of the 28,158 cases closed during the fiscal year 1947 the injury did not cause any loss of time from work beyond the day of injury, many of the disabling injuries were serious in nature and extent. Of the 7,815 disabling injuries, 3,721 cases, or 48 percent, were compensated. Of the compensated cases, 342 cases, or 9.2 percent, involve disability of a permanent nature. In 50 cases awards were made for serious facial disfigurement.

Compensation paid in cases closed during 1947 amounted to $637,036 for 243,279 days of nonfatal disability. Evaluated cost of 28 fatal cases closed during 1947 amounted to $199,352.

During the 1947 fiscal year awards were made to 34 dependents in 16 fatal cases. The estimated total evaluation of these cases is expected to reach the sum of $93,558. It should be noted that all compensation benefit data quoted are exclusive of medical costs concerning which the Bureau is usually not advised.

As of June 30, 1947, a total of 2,372 injury cases remained open representing cases on which final action had not as yet been taken. Included in this number are 512 nonfatal and 238 fatal cases upon which compensation was being paid. The remaining cases were incomplete and in various stages of adjudication.

Expenses of administering the District of Columbia Act.—The expense of administering this law is paid from funds provided for the purpose in the annual appropriation for the Government of the District of Columbia and transferred to the Bureau for expenditure. A total of $105,200 was appropriated for the fiscal year 1947 and the estimated cost of administration excluding general overhead that year was $105,077. The amount expended includes $94,818 for personal services.

Statistical Trends in Federal Compensation Acts

In the interest of brevity and economy the statistical material relating to operations under the various compensation acts administered by the Bureau have been curtailed considerably this year. They have been limited to a 2-year comparison and segregated from the foregoing discussion in order to present a succinct and clear over-all picture. Reports for prior years have carried detailed statistical analyses from the beginning of the various acts, and where occasionally needed, reference to the Thirtieth Annual Report of the Employees' Compensation Commission will ordinarily provide all the necessary research data desired.

To facilitate comparison between prewar and developing postwar conditions, however, the average for the three prewar years 1938, 1939, and 1940 is shown alongside figures for 1946 and 1947.

TABLE 1.—*Accidental injuries to civilian employees of the Federal Government, July 1, 1945, to June 30, 1947*

Item	Fiscal year		
	Average 1938, 1939, and 1940	1946	1947
A. Injury cases reported:			
Nonfatal	41, 265	104, 498	88, 574
Fatal	306	1, 103	1. 457
Total	41, 571	105, 601	90, 031
Index	100	254	217
B. Employment coverage	920, 000	3, 000, 000	2, 100, 000
C. Casualty rates:			
Frequency per million man-hours	12. 68	9. 93	9. 19
Severity per thousand man-hours	1. 23	. 67	. 76
Cost per $100 pay roll	$0. 31	$0. 20	$0. 18
Cost per employee	$5. 59	$5. 22	$4. 78
D. Number of injury cases reported, by establishment:			
Executive Office of the President	6	1, 599	1, 391
Department of State	13	146	238
Department of the Treasury	1, 942	2, 741	2, 583
Department of War	7, 900	44, 229	26, 686
Department of Justice	180	412	433
Post Office Department	13, 141	20, 374	23. 296
Department of the Navy	2, 031	20 470	12, 582
Department of the Interior	3, 715	2, 520	3, 727
Department of Agriculture	6, 547	3, 728	4, 120
Department of Commerce	704	959	1, 109
Department of Labor	154	167	110
Federal Security Agency	340	633	581
Federal Works Agency	1. 094	1, 606	1, 961
District of Columbia Government	716	468	627
Tennessee Valley Authority	1, 080	776	950
Veterans' Administration	739	2, 899	5, 987
All Other Agencies	1, 269	1, 874	3. 650
Total	41, 571	105, 601	90, 031
E. Final disposition of injury cases:			
Minor injury cases	18, 746	37, 968	30, 446
Disability 1–3 days	5, 301	16, 981	12, 603
Covered by leave	8, 858	25. 429	22, 624
Compensated, nonfatal	5, 012	16, 553	13, 079
Compensated, fatal	98	175	178
No dependents, fatal	42	155	89
Third party recovery	57	114	89
Disapproved	2, 974	10, 874	5, 468
All other	318	4, 147	2, 980
Total	41, 406	112, 396	87, 556
Index	100	271	211
F. Injury cases active at end of year:			
Nonfatal	5, 599	15, 116	19, 493
Fatal	2, 784	6, 370	7, 094
Total	8, 383	21, 486	26, 587
Index	100	256	317
Percent of nonfatal cases being compensated	41. 5	26. 9	24. 9
Percent of fatal cases being compensated	97. 7	69. 8	67. 5
G. Number of cases in which fatal awards were made during year	171	513	1, 230
Number of widows	142	388	931
Number of children	219	741	1, 929
Number of parents	30	106	22
Number of brothers and sisters	6	110	516
Number of other dependents	5	6	22
Total number of dependents	402	1, 351	3, 620
Average number of dependents per case	2. 4	2. 6	2. 9
H. 3 basic averages:			
Average evaluation per fatal case	$9, 800	$10, 712	$10, 715
Average evaluation per nonfatal disabling injury	$149	$160	$153
Average days lost per nonfatal disabling injury	38	30	27

NOTE.—Excludes emergency relief acts except where specifically indicated.

TABLE 1.—*Accidental injuries to civilian employees of the Federal Government, July 1, 1945, to June 30, 1947*—Continued

Item	Fiscal year		
	Average 1938, 1939, and 1940	1946	1947
I. Disbursements:			
Medical treatment and supplies	$612, 433	$2, 043, 254	$2, 126, 468
Disability compensation	1, 905, 357	4, 202, 590	4, 793, 142
Death compensation	1, 733, 374	3, 005, 726	3, 540, 265
Burial expenses	28, 310	42, 486	40, 436
Lump-sum awards	3, 806	----------	----------
Transportation for treatment	37, 418	79, 737	60, 404
Embalming and transportation	2, 808	3, 479	1, 795
Court costs	785	284	633
Enemy action, Public Law 784	----------	6, 171, 578	3, 770, 894
Emergency Relief Acts	6, 986, 865	958, 800	699, 680
Total	11, 311, 156	16, 507, 934	15, 033, 717
J. Number of payments:			
Compensation	132, 390	190, 368	213, 550
Medical and allied expenses	40, 520	73, 338	71, 686
Total	172, 910	263, 706	285, 236
Index	100	153	165
K. Emergency relief cases still active:			
Nonfatal	12, 419	736	724
Fatal	4, 173	2, 917	2, 570
Total	16, 592	3, 653	3, 294

TABLE 2.—*Accidental injuries to civilian employees other than regular Federal employees*

Item	Fiscal year		
	Average 1938, 1939, and 1940	1946	1947
A. Injury cases reported:			
Nonfatal	71, 738	165, 089	163, 778
Fatal	220	347	288
Total	71, 958	165, 436	164, 066
Index	100	230	228
B. Kinds of employees injured:			
Longshoremen	23, 089	72, 906	66, 720
Harbor workers	22, 170	66, 227	59, 884
Defense base workers	----------	2, 687	9, 852
District of Columbia private employees	26, 699	23, 616	27, 610
Total	71, 958	165, 436	164, 066
C. Final disposition of injury cases under the Longshoremen's and Harbor Workers' Compensation Act:			
Number of cases closed:			
Nonfatal	46, 339	142, 835	127, 970
Fatal	144	152	216
Total	46, 483	142, 987	128, 186
Evaluation of cases closed:			
Temporary disability	$1, 002, 911	$2, 763, 960	$2, 432, 808
Permanent disability	1, 097, 403	3, 505, 150	3, 811, 923
Facial disfigurement	17, 418	138, 259	113, 370
Fatal costs	262, 964	300, 000	597, 294
Total	2, 380, 696	6, 707, 369	6, 955, 395

TABLE 2.—*Accidental injuries to civilian employees other than regular Federal employees*—Continued

Item	Fiscal year		
	Average 1938, 1939, and 1940	1946	1947
D. Final disposition of injury cases under the District of Columbia Workmen's Compensation Act:			
Number of cases closed:			
Nonfatal	27,615	24,295	28,107
Fatal	51	54	51
Total	27,666	24,349	28,158
Evaluation of cases closed:			
Temporary disability	$282,894	$287,553	$266,492
Permanent disability	295,009	346,698	370,544
Facial disfigurement	6,645	7,242	11,600
Fatal costs	79,800	162,816	199,352
Total	664,348	804,309	847,988
E. Final disposition of injury Cases under the Defense Bases Act:			
Number of cases closed:			
Nonfatal		3,418	9,665
Fatal		32	29
Total		3,450	9,694
Evaluation of Cases Closed:			
Nonfatal		$248,032	$301,093
Fatal		153,920	139,490
Total		401,952	440,583
F. Total number of cases closed	74,149	170,786	166,038
Total evaluation of cases closed (this item includes L & H workers, D. C., and Defense Base workers)	$3,045,044	$7,913,630	$8,243,966
G. Number of fatal awards made during the year:			
L & H workers	84	142	101
D. C. workers	23	24	16
Defense Base workers		48	25
Total	107	214	142
H. Number of cases still active:			
L & H workers	5,001	11,528	12,124
D. C. workers	1,832	2,077	2,372
Defense Base workers		1,510	1,805
Total	6,833	15,115	16,301
Index	100	221	239

TABLE 3.—*Appropriations and expenditures, 1916–47*

Period covered	Salaries and expenses		Compensation benefits	
	Total appropriations	Net expenditures, including estimated outstanding liabilities at the end of fiscal year	Total appropriations [1]	Net expenditures
Mar. 26 to June 30, 1917	$50,000.00	$27,394.79	$500,000	$122,806.07
Fiscal year ending June 30:				
1918	[2] 87,000.00	79,421.86	500,000	706,257.92
1919	145,810.17	129,149.28	[3] 1,300,000	1,399,757.13
1920	144,656.02	140,898.09	2,100,000	2,087,365.58
1921	171,940.00	166,627.75	2,500,000	2,303,346.69
1922	160,751.66	156,860.75	2,400,000	2,627,170.08
1923	159,740.00	156,729.89	2,975,000	2,726,530.83

[1] Prior to 1924 appropriations for compensation were continuing.
[2] Includes $7,000 allotted from President's fund for expenses in France.
[3] Includes $50,000 allotted from President's fund.

TABLE 3.—*Appropriations and expenditures, 1916–47*—Continued

Period covered	Salaries and expenses		Compensation benefits	
	Total appropriations	Net expenditures, including estimated outstanding liabilities at the end of fiscal year	Total appropriations [1]	Net expenditures
Fiscal year ending June 30—Continued				
1924	$149,080.00	$147,844.00	$2,300,000	$2,333,526.82
1925	152,100.00	148,202.66	2,500,000	2,463,162.77
1926	[4] 153,900.00	147,239.63	2,375,000	2,581,379.17
1927	144,540.00	145,872.73	2,600,000	2,616,581.82
1928	148,240.00	146,601.05	3,250,000	3,370,390.41
1929	[5] 555,010.00	[6] 189,430.76	3,550,000	3,552,399.38
1930	[5] 540,326.00	196,479.01	4,000,000	4,005,170.88
1931	[5] 573,000.00	210,405.07	4,200,000	4,190,198.14
1932	[5] 593,980.00	[6] 200,937.00	4,200,000	4,210,199.75
1933	[5] 493,000.00	[6] 158,757.00	4,450,000	3,957,028.00
1934	404,857.00	[6] 146,266.00	3,820,000	3,425,163.00
1935	416,510.00	[6] 171,720.00	3,987,900	4,239,986.00
1936	522,300.00	[6] 183,363.00	4,250,000	4,254,371.00
1937	[7] 516,250.00	[6] 235,156.00	[7] 4,750,000	4,429,058.00
1938	527,750.00	[6] 232,109.00	4,650,000	4,265,869.00
1939	557,275.00	[6] 237,210.00	4,775,000	4,230,870.00
1940	[8] 584,300.00	[6] 248,619.00	4,500,000	4,476,125.00
1941	[8] 568,900.00	[6] 235,066.00	5,100,000	4,980,875.00
1942	[8] 709,858.00	[6] 313,248.00	5,400,000	5,324,898.00
1943	[8] 826,920.00	[6] 470,738.00	7,750,000	7,732,170.00
1944	[8] 1,042,695.00	[6] 660,945.00	10,550,000	10,495,629.00
1945	1,851.140.00	[9] 907,000.00	16,507,872	[10] 14,144,300.00
1946	1,727,150.00	[9] 939,000.00	[11] 23,281,297	[12] 16,507,934.00
1947	1,758,200.00	[9] 959,000.00	[13] 15,074,069	[12] 15,033,717.00

[4] Includes deficiency appropriations of $1,900 available for expenditures during fiscal year 1927.

[5] Separate appropriations for administration of Federal Employees' Act not made. Appropriation shown was made covering administration of the 3 compensation acts administered by the commission and includes all appropriations for administrative purposes.

[6] Estimated amount expended for administration of Federal Employees' Act. Figure for 1942 revised.

[7] No direct appropriation was made for 1937. The amount shown was made available by transfer or from the special fund established in the Treasury for compensation benefits for employees of the Civil Works Administration.

[8] Does not include transfer authorized from Emergency Relief appropriation.

[9] Includes administrative expense for Administration of Federal Employees' Act as to relief and foreign employment.

[10] Includes Emergency Relief expenditures.

[11] Includes appropriation of $7,800,000 for wage accrual benefits.

[12] Includes Emergency Relief and Wage Accrual Fund expenditures.

[13] Includes reappropriation of $474,069 from prior year wage accrual appropriation.

TABLE 4.—*Trust fund accounts for fiscal year 1947*

Longshoremen's and Harbor Workers' Compensation Act:		
Balance July 1, 1946		$529,164.99
Cash	$119,240.28	
Investments	409,924.71	
Receipts fiscal year 1947		38,877.89
Payments under sec. 44 (c) (1)	$28,004.00	
Interest	10,873.89	
Total		568,042.88
Expenditures		11,904.90
Compensation, sec. 8 (f)	$1,022.15	
Compensation, sec. 8 (g)	3,064.29	
Prosthetic appliances	5,747.22	
Refund of erroneous collection under sec. 44 (c) (1)	1,000.00	
Transportation	71.24	
Adjustment of erroneous credit	1,000.00	
Balance June 30, 1947		556,137.98
Cash	$134,213.27	
Investments	421,924.71	
District of Columbia Compensation Act:		
Balance July 1, 1946		82,669.61
Cash	$28,903.98	
Investments	53,765.63	

TABLE 4.—*Trust fund accounts for fiscal year 1947*—Continued

Receipts during fiscal year 1947		$10,324.84
Payments under sec. 44 (c)	$8,000.00	
Interest on investments	1,317.50	
Interest adjustment fiscal year 1946	7.34	
Adjustment of erroneous credit	1,000.00	
Total		92,994.45
Expenditures		1,961.00
Prosthetic appliances	$1,961.00	
Balance June 30, 1947		91,033.45
Cash	$20,267.82	
Investments	70,765.63	

SECTION SEVEN

OFFICE OF VOCATIONAL REHABILITATION

1947—A BANNER YEAR

The fiscal year 1947 was the most successful year for disabled civilians since 1920 when the State-Federal partnership in vocational rehabilitation came into being. The fiscal year 1947 was a banner year because the State agencies, teamed with the Office of Vocational Rehabilitation, reached a peacetime peak in the total number of handicapped men and women rehabilitated into gainful employment. In accomplishing this, the State agencies served an all-time record number of working-age civilians with physical or mental disabilities which constituted job impairments, and also greatly enhanced the volume, quality and diversity of component services in the vocational rehabilitation program.

Highlights for the year ended June 30, 1947, were:

(1) 51,575 disabled men and women were prepared for and placed in employment. Of these, 43,874—21.5 percent more than in the preceding year—were performing their jobs to the satisfaction of themselves and their employers so that their cases were closed as rehabilitated, and 7,701 were working gainfully but being observed for a period of time to make sure that their adjustment would be complete. In 1946, there were 36,106 rehabilitated into employment.

(2) 5,637 were ready for employment, i. e., had received counsel and guidance, physical restoration where needed, training and other necessary comeback services, and were awaiting placement in suitable occupations. There were 4,012 in this classification last year.

(3) The earnings of the rehabilitated men and women increased approximately 400 percent from about $14,000,000 before rehabilitation to an estimated annual rate of $68,000,000 during the first year after rehabilitation. This does not include farmers or family workers whose income was difficult to estimate.

(4) As a result of the greater earnings of these workers, the annual earned income of the nation increased about $54,000,000.

(5) The program was operated at a cost of about $400 per rehabilitation.

(6) 5,136 visually handicapped persons, of whom 2,193 were blind, were rehabilitated. The 2,193 blind men and women represented an increase of 64.3 percent over the corresponding total for the preceding year, 1,335.

(7) There were marked increases in the volume of services purchased in physical restoration, artificial appliances, hospitalization and placement equipment.

(8) The total caseload of the State vocational rehabilitation agencies and State agencies for the blind participating in the program was 303,455 persons during the 12-month period, a 13.6 percent increase over the 267,047 during the preceding fiscal year.

(9) Four States—California with 3,205, Michigan with 3,128, New York with 2,776, and Georgia with 2,755—surpassed 1946's highest State total number of rehabilitations, 2,400, which was set by Georgia.

(10) All but 11 States increased their individual totals of rehabilitations for 1946.

(11) Pennsylvania had the greatest percentage of increase, 174 percent, rising from 736 rehabilitations in 1946 to 2017 in 1947.

(12) Three agencies joined the vocational rehabilitation program—agencies for the blind in Massachusetts and Virginia, and the general agency in Alaska.

(13) Interest in development of rehabilitation centers increased—Virginia took over facilities formerly used as an Army general hospital; Pennsylvania and Louisiana made plans to set up centers in connection with hospitals; and other States stimulated local private facilities to establish centers.

(14) A special demonstration clinic to train amputees in the proper fit and use of artificial limbs was conducted in Hasbrouck Heights, N. J., with this Office as one of the sponsors.

(15) In addition to facilities already available for services to epileptics in the larger cities, special demonstration projects including clinical diagnosis, drug therapy, neurology, and related services for persons with epilepsy were introduced in Chicago, Detroit, Milwaukee, New York City, Iowa City (Iowa), Virginia City (Va.), Birmingham (Ala.), Bangor and Portland (Maine).

(16) Improved professional performance of counselors and other rehabilitation workers was achieved through special institutes conducted by the Office of Vocational Rehabilitation. Staff members from 40 State agencies participated.

(17) Rehabilitation services were brought closer to and made more effective for greater numbers of individuals by the States continuing to decentralize programs.

(18) Summer courses in the counseling phase of vocational rehabilitation were conducted at Pennsylvania State College and Colorado Agricultural and Mechanical College. Ohio State University planned to introduce a graduate curriculum.

(19) We signed cooperative agreements with three organizations interested in the welfare of the disabled, thus increasing to 19 the number which have been entered into since this Office was established in 1943.

(20) Many new fields of employment were opened for the blind.

In the light of these achievements, it is readily apparent that 1947 marked the emergence of the State-Federal partnership from the experimental period which, of necessity, followed expansion of the civilian vocational rehabilitation program in 1943, and that the partnership is now confidently and vigorously going forward in its mission to help the handicapped to help themselves. It is heartening to be able to note this fact because of the large number of Americans who suffer job handicaps through accident, illness, or other causes, and who thus become eligible for State-Federal services.

There are at least 1,500,000 men and women in the United States today who have physical or mental handicaps which interfere with their most suitable employment. This figure does not include veterans of the armed forces with service-connected disabilities. More than 250,000 persons become so disabled each year that they need rehabilitation services. In the effort to gear the State-Federal program more closely to the needs of the disabled, the Office of Vocational Rehabilitation during 1947 continued its policy of urging State agencies to determine the size of the backlogs of eligible persons within their borders and to take the necessary steps to discharge their responsibilities to all the disabled.

Scope and Administration of the Federal Act

The Office of Vocational Rehabilitation was established in 1943, after passage of the Vocational Rehabilitation Act amendments, which assigned to the Federal Security Administrator responsibility for administration of the law known familiarly as Public Law 113 (79th Cong.), or the Barden-LaFollette amendments. These responsibilities include establishment of standards in the various areas of service; technical assistance to State agencies and certification of funds for grants-in-aid to the States on approval of State plans for vocational rehabilitation which meet the requirements of the authorizing act of Congress.

Under the State-Federal partnership which now covers each of the 48 States, Alaska, Hawaii, Puerto Rico, and the District of Columbia, the State agencies actually provide the services which are necessary to help eligible handicapped persons to overcome job handicaps.

As of June 30, 1947, there were 52 general rehabilitation agencies and 35 agencies for the blind with plans approved for participation in the program.

Public Law 113 made it possible to serve not only the physically handicapped but the mentally handicapped as well; and contained specific provisions for the blind, for civil employees of the United States Government injured in line of duty, and for war-disabled civilians, including merchant seamen.

Grants-in-aid provisions of the original act were continued in the amendments; however, restrictions as to permissible Federal expenditures for program operation were liberalized. All necessary administrative costs, including vocational guidance and placement, are now borne by the Federal Government. Costs of medical treatment, vocational training, and similar services are shared by the State and Federal Governments on a 50–50 basis. Costs of rehabilitating war-disabled civilians are 100 percent reimbursable from Federal funds.

In addition to liberalizing fiscal provisions, the new act also authorized expenditure of Federal funds for physical restoration, which is an integral function in the rehabilitation of a vocationally disabled individual.

Services to the Individual

In the State divisions of vocational rehabilitation functioning under the State boards of education is vested the responsibility for providing rehabilitation services to eligible men and women residing in the various States. State commissions or agencies for the blind, however, provide rehabilitation services for the blind where State laws authorize the rendering of such services by separate agencies for the blind. Where such authority does not exist, rehabilitation of the blind is a function of the State agency which, in all States, serves the visually handicapped who do not come within the definition of blindness.

The States are charged with determining eligibility of disabled individuals. Eligibility is based on three basic conditions:

1. The individual must be of employable age.
2. The individual must have an occupational handicap by reason of disability.
3. The individual may be rendered employable or more suitably employed through rehabilitation services.

Organization and Activities of the Office of Vocational Rehabilitation

The Office of Vocational Rehabilitation carries out its responsibilities to the disabled and to the State agencies which serve them directly through two functional divisions:

(1) the Rehabilitation Standards Division, comprising four sections—Advisement, Training and Placement; Physical Restoration; Services for the Blind; Research and Statistics.

(2) the Administrative Standards Division, made up of two sections—Management Standards, and Fiscal Standards and Control.

The Office of Vocational Rehabilitation also maintains an Information Service to assist the States in creating public understanding of the "who, what, where, why, and how" of the program of vocational rehabilitation for civilians.

There are seven regional offices whose mission is to stimulate closer working relationships between the States and the central office.

The following pages contain a detailed report of the various operations of this Office during the 1947 fiscal year.

Advisement, Training, and Placement Services

Forty general rehabilitation agencies and agencies for the blind put into practice during 1947 staff development programs which stemmed from workshops on supervision and case work conducted by the Office of Vocational Rehabilitation. Thus we vitalized one of our continuing primary aims: to be of maximum service to the States by promoting ever sounder professional performance by counselors and other rehabilitation workers.

Consultative services and issuance of significant technical materials were also prominent among the methods used in this connection, with review of case service programs being provided as a new procedure of the past fiscal year. Taking advantage of all these facilities, State agencies sent 581 rehabilitation workers to some 20 federally sponsored training institutes designed to develop the skills of supervisory personnel and to advance continuous, orderly staff development and higher quality supervision at the operating level. Specialists from all sections of the Federal office participated in the conduct of these institutes.

The tables which follow show the types of training facilities provided by this Office in 1947, along with the number of persons attending from the individual States.

Despite housing and faculty shortages, progress was made in 1947 in promoting in educational institutions training courses for professional rehabilitation workers as the summer courses offered at Pennsylvania State College and Colorado Agricultural and Mechanical College bear out. A member of this Office's professional staff conducted the course at Penn State, which was cataloged as "The Counseling Interview in Vocational Rehabilitation." The assistant director of the Utah Vocational Rehabilitation Division conducted the course at Colorado A. & M., entitled "Introduction to Vocational Rehabilitation."

TABLE 1.—*Chronological listing of training institutes, workshops, and conferences from July 1, 1946 through June 30, 1947*

Type	Place	Dates	Attendance	Region
Workshop, supervision in casework.	Atlanta, Ga.	July 22–27, 1946	34	III
Orientation institute	do	Sept. 18–28, 1946	31	III
Workshop, supervision in casework.	State College, Pa.	Sept. 23–28, 1946	22	I and II
Orientation, State agencies for blind.	Reading, Pa.	Sept. 30–Oct. 11, 1946	33	All
Orientation, special techniques, counseling blind.[1]	Bloomington, Ill.	Oct. 14–18, 1946	54	IV
Industrial specialists for blind	Baltimore, Md.	Oct. 14 to Nov. 9	9	All
Rural specialists for blind [1]	Atlanta, Ga.	Oct. 14 to Nov. 9	9	All
Orientation institute	Columbus, Ohio	Oct. 21–26, 1946	21	IV (Ohio)
Workshop, special techniques, rehabilitation of tuberculous.	San Francisco, Calif.	Nov. 4–8, 1946	23	VII and VIII
Workshop, supervision in casework.	do	Nov. 11–16, 1946	22	VII and VIII
Orientation institute	Atlanta, Ga.	Nov. 13–23, 1946	37	III
Workshop, supervision in casework.	Philadelphia, Pa.	Dec. 16–20, 1946	27	II
Orientation institute	Monroe, La.	Jan. 15–24, 1947	40	VI
Workshop, supervision in casework.	do	Jan. 27–31, 1947	36	VI
Orientation, special techniques, psychology of blindness.[1]	Toledo, Ohio	Jan. 27–31, 1947	17	IV
Do	Minneapolis, Minn.	Feb. 3–7, 1947	17	IV and V
Accountants and statisticians [1]	Chicago, Ill.	Feb. 27–28, 1947	29	IV and V
Orientation institute	District of Columbia	Mar. 3–12, 1947	30	II
Do	do	Mar. 13–21, 1947	27	I and II
Physical restoration conference	do	Mar. 24–26, 1947	63	I and II

[1] The first of its kind.

TABLE 2.—*Distribution of State personnel*[1] *trained at federally sponsored institutes from July 1, 1946, through June 30, 1947*

State	Number	State	Number	State	Number
Alabama	7	Maine	5	Oklahoma	5
Arkansas	7	Maryland	7	Oregon	8
California	31	Massachusetts	7	Pennsylvania	82
Connecticut	9	Michigan	4	Rhode Island	7
Delaware	9	Minnesota	7	South Carolina	14
District of Columbia	14	Mississippi	10	South Dakota	4
Florida	24	Missouri	16	Tennessee	15
Georgia	21	Nebraska	5	Texas	13
Hawaii	4	New Hampshire	6	Utah	1
Illinois	56	New Jersey	17	Vermont	5
Indiana	6	New Mexico	4	Virginia	12
Iowa	6	New York	7	Washington	6
Kansas	5	North Carolina	16	West Virginia	12
Kentucky	7	North Dakota	3	Wisconsin	9
Louisiana	28	Ohio	38	Wyoming	2
				Total	581

[1] Alaska, Arizona, Colorado, Idaho, Montana, Nevada, and Puerto Rico did not send personnel to Federal training institutes.

Another noteworthy undertaking in the educational field was the introduction of courses dealing with vocational rehabilitation into the graduate curriculum at Ohio State University. In setting up the course, university officials sought the assistance of the Office of Vocational Rehabilitation.

Review of case service programs represented a new practice in advisement, training, and placement services. At the request of the State directors in Idaho, Indiana, Massachusetts, Nebraska, Utah, and

West Virginia, staff members of this Office reviewed each requesting agency's program and issued recommendations based on findings. In West Virginia a further refinement of this procedure was developed through the use of State personnel as well as Federal.

Table 3, which follows, shows the extent to which the States availed themselves of the advisement, training, and placement services of this Office.

TABLE 3.—*Breakdown by States served of certain advisement, training and placement activities from July 1, 1946, through June 30, 1947*

State	Review of case service program	Review of tuberculosis sanatoria	Psychological consultation	Aural disabled consultation	General case services
Arizona					X
Arkansas			X	X	
Colorado					X
Connecticut		X			X
District of Columbia	X		X		
Georgia			X		
Idaho	X				
Illinois			X	X	
Indiana	X				
Kentucky			X		X
Louisiana			X	X	X
Massachusetts	X				
Michigan			X	X	
Minnesota		X	X		
Mississippi			X	X	X
Missouri				X	
Nebraska					X
New York		X			
North Carolina		X	X		
Ohio		X	X		
Oklahoma				X	
Pennsylvania					X
South Carolina					X
Utah	X				
Virginia				X	
West Virginia	X				X
Wisconsin			X		
Total	6	5	12	8	10

In the 27 years which have elapsed since the beginning of the State-Federal program of vocational rehabilitation, many principles underlying sound rehabilitation practices have been formulated. However, they have never been concisely stated. The rapid increase in rehabilitation workers, the new types of clients being served, and the new services being offered since 1943 emphasized the need of explicit statements of these fundamentals. Accordingly, during the past fiscal year considerable time was devoted to development of universally acceptable statements of minimum standards with respect to rehabilitation practices. Standards were completed for determining eligibility and providing rehabilitation services, for reopening cases, for terminating services to clients, and with respect to use of scholarship grants by rehabilitation clients. Development of standards in other areas is in progress.

Physical Restoration Services

Since medical service is one of the supporting girders in the State-Federal vocational rehabilitation structure, the State agencies look to this office for guidance and leadership in the provision of these services. We are charged with responsibility for developing standards, policies, and techniques governing the provision of physical and mental restoration services; making studies and evaluations of State physical restoration facilities; appraising existing techniques with a view to improving medical services provided to disabled individuals; maintaining liaison with governmental and nongovernmental medical organizations having national scope.

The armed forces during the war made outstanding progress in the rehabilitation of their severely disabled, and many of the persons who contributed to the success of the Army and Navy programs by conducting research and putting the results of the research into action have reverted to civilian status. One of the pressing tasks of the Office of Vocational Rehabilitation during the 1947 fiscal year has been, and will continue to be, the seeking out and enlisting the personnel who developed and used those war-born techniques so successfully to the end that their skills may be devoted to the civilian disabled, who now, as always, vastly outnumber military casualties.

The fiscal year brought an increased number of changes in State plan provisions to meet changing conditions, to reflect the accumulated experiences in operating the program, and to bring the portions which had not previously been approved into conformity with Federal requirements. During the fiscal year, State agencies submitted for consideration approximately 200 State plan amendments primarily concerned with or related to the physical restoration aspects of the program. Prominent among these were amendments pertaining to rates of payment for physical restoration services, standards for services to be provided, and administrative considerations including standards and compensation for technical physical restoration personnel and functional relationships affecting the development and integration of physical restoration services with other services of the program.

The Office of Vocational Rehabilitation met with representatives of the American Hospital Association, the Catholic Hospital Association, the Children's Bureau, and the Veterans Administration, to consider revision of the Joint Hospital Cost Statement and the formula whereby the per diem reimbursable cost of hospital care is calculated. The American Hospital Association made a number of recommendations which were adopted by the three Federal agencies.

There was notable progress in 1947 in connection with physical restoration. Several States organized programs for serving persons discharged from mental hospitals whose prognosis for work was favorable. However, at the end of the year, much remained to be done in some States in providing services to individuals having mental disabilities. There continued to be a shortage of psychiatrists, which impeded the obtaining of psychiatric treatment in appropriate cases.

A psychiatric social consultant was added to our staff to assist State agencies to develop case work methods applicable to the handling of clients with mental disabilities.

The year also brought increased facilities for the diagnosis and treatment of persons with epilepsy. Practically every State is undertaking steps to coordinate community and medical facilities to provide a well-rounded service to persons with epilepsy. Much remains to be done in creating public and employer acceptance of qualified workers whose epilepsy has been brought under control.

Medical officers assigned from the United States Public Health Service continued to handle the physical restoration services of the Office of Vocational Rehabilitation. At the beginning of the fiscal year four medical officers were so assigned to the Washington office and two to regional offices. At the close of the year, two medical officers remained due to one resignation and three transfers.

The Office conducted in Washington a 3-day conference of State physical restoration personnel from regions I and II. The meeting was attended by approximately 100 persons including State and district medical administrative consultants.

The conference considered particularly the problem of physical restoration services for the severely disabled including such conditions as cerebral palsy, epilepsy, amputations, paraplegia and mental conditions. National and international authorities on the several conditions were present as consultants.

The National Professional Advisory Committee met in May 1947 to review progress in the provision of physical restoration services and to consider the desirability of making certain changes in the Manual of Policies, Section on Requirements and Recommendations for Physical Restoration Services. The committee endorsed existing policies and urged that every effort be made to encourage the training of specialists in the various fields of vocational rehabilitation to build up the supply of experienced personnel. The group agreed that only by so doing could physical restoration developments brought about as the result of wartime research and experience be brought to bear on the problems of the civilian disabled.

Services for the Blind

The opening of new employment opportunities for the blind were among the heartening developments reported by the States for 1947, thus substantiating the emphasis which the Office of Vocational Rehabilitation places on realistic, comprehensive consultative services and training institutes for State personnel who are responsible for the rehabilitation of the blind.

Some of the new employment fields found were in cement block manufacture, operating wood cabinet shops, raising rabbits for pelts, boning meat in packing houses, operating home laundries, operating automatic developing machinery in photographic studio darkrooms, clothes pressing, and toolmaking (journeymen). Placements in industry workshops, businesses such as vending stands, small business enterprises, rural occupations such as farming, and in professional and clerical occupations also indicate broadened horizons for the blind.

In providing services for the blind, the Office of Vocational Rehabilitation followed a five-point program in the past fiscal year in discharging its responsibility to the States:

(1) Training State personnel through various types of institutes (see table 1).

(2) Field follow-up service in adapting basic training materials to specific situations in the States.

(3) Providing consultative services to State agencies.

(4) Developing additional materials for training State personnel.

(5) Preparing manual materials, job descriptions of occupations suitable for the employment of blind persons, and technical materials for use of State agency personnel in the rehabilitation of persons without sight.

Institutes were conducted during the year in orientation, and in industrial and rural employment. An orientation institute in the basic philosophy underlying Public Law 113 and fundamentals essential to performance of the services needed by eligible blind persons was conducted.

Intensive, concentrated courses of instruction for persons employed to rehabilitate the blind into industrial production employment were again conducted. During an institute, a blind industrial specialist learns as many as 100 production operations, thus acquiring a basic foundation in skill development which enables him to analyze industrial operations he may later observe in any type of industry, and to be familiar with the necessary steps to perform these operations safely. The mechanical training is supplemented with practical instruction in industrial management and labor problems, industrial safety, public liability insurance and workmen's compensation, and personnel relationships. Despite the outstanding production records which blind workers made in wartime industries, there was apparent a tendency on the part of some employers to revert to unfounded prewar attitudes in opposition to the employment of handicapped persons, and particularly the blind. Emphasis in the training institutes was placed upon methods of overcoming this resistance on the part of employers.

The first institute ever held for State personnel responsible for the rehabilitation of blind persons living in rural areas was conducted in Clarkesville, Ga. The Georgia Division of Vocational Rehabilitation provided a class of five blind clients, thus giving trainees the opportunity actually to instruct blind persons in the performance of numerous farm activities. As a result, several State directors reported that the rural counselor is now solving problems that have heretofore been considered impossible.

Another "first" was a series of three 5-day orientation institutes attended by counselors from 11 State agencies serving the blind. The institutes featured discussions on the psychology of blindness, its effect on the blind person's family and friends, its effect on the blind individual, and the need for personal and social adjustment of the newly blinded before planning for a vocational objective in order that the individual may avail himself of one of the many employment opportunities open to blind persons.

In giving assistance to State directors, this office emphasized the need for adequate adjustment and prevocational training. It has been recognized that a large percentage of blind persons who fail to become suitably employed can be traced directly to an unsatisfactory adjustment to their handicap. This problem has been considered so serious that, as direct results of consultative services provided by our staff, centers were established in Florida, North Carolina, Pennsylvania, and Arkansas, which provide assistance in overcoming problems in getting about, eating, grooming, etc., as well as in developing manual dexterity, facial expression, interpretation of sounds, and posture. Other centers have been planned for Chicago and Minneapolis.

Many blind persons eligible for vocational rehabilitation have no working experience which can be utilized or built upon in an employment objective suitable to their needs. Moreover, their manual skills have not been developed in most instances. Thus, training of a prevocational character must be provided, which includes short try-outs in machine-shop operation and simple packing or assembling jobs for the purpose of developing work tolerance and testing manual dexterity.

A project of major importance was the development of materials to be used for training State personnel in developing Business Enterprises Programs for the blind. Research showed many types of small businesses suitable for operation by blind persons. These included woodworking, manufacturing concrete blocks, leather tooling, making coat hangers, fly tying, rabbit, chinchilla and guinea pig raising, and bee keeping; operating nut shops, juice bars, fruit shops, pet stores, bus stations, cafeterias; car washing and polishing, and making recordings.

As an aid to State agencies, this Office, in cooperation with other Government agencies, embarked on the preparation of descriptions of jobs in industry, rural activities, and commercial pursuits. The descriptions will show the specific duties, operations performed, and physical demands of jobs.

The President's Reorganization Plan No. 2, which became effective July 16, 1946, transferred the functions of the Randolph-Sheppard Act (Public Law 732, 74th Cong.) from the Office of Education and the Commissioner of Education to the Federal Security Administrator who delegated authority for the administration of this program of vending stands in Federal buildings to the Director of the Office of Vocational Rehabilitation. Carrying out this responsibility involves continual contact with the Federal departments cooperating in the program because of shifts in operating locations, replacement of operators who leave the program, and the relocation and occupation of new, rented, or owned buildings. It also involves assistance to State agencies, reviewing applications for individual licenses, designing equipment for specific locations, providing advisory services where changing conditions demand, and the review of operations in State programs to assist in program improvement.

Management and Fiscal Services

Sound management and fiscal planning are essential for the effective provision of rehabilitation services to the disabled. The demand of the States for help in improving these essential elements of State operations is constantly increasing.

Two of the principal instruments for supplying management and fiscal services to State agencies are the administrative survey and the fiscal audit. These were used in 1947 to stimulate the State agencies to adopt improved organization and more effective administrative, personnel, or fiscal practices. They were also used to determine the extent to which Federal funds are available for the expenditures made by State agencies and whether the operations of the State program are in conformity with the provisions of the approved State plan.

Administrative surveys may be made in more or less detail depending on the purpose of the specific survey and the staff time available for conducting it. The survey of one large State agency in which the relationship between State and district offices and the coordination of State and district operations had been problems of long standing consumed the major part of one staff member's time over a period of 6 months. Every phase of operations was covered, the majority of the State employees interviewed and records, reports, and case histories reviewed and analyzed.

Surveys for some one specific purpose may not be so wide in scope or require so much staff time. All surveys, however, embrace the overall planning, organization, and administration of the State agency.

An administrative survey is not finished when finally it is put into written form. All sections of the Federal office read and discuss the findings of the survey and comment on the report and recommendations. A plan for action must then be developed and the participants from the Federal and regional offices briefed in respect to the particular aspects of program philosophy involved. Discussions with State officials follow during which the details of the survey findings are reported and various plans for meeting the situation are developed. The object of these discussions is to select desirable methods for adoption by the State agency in dealing with the situation revealed by the survey.

It is not always necessary for the State agency to take drastic measures or to consider comprehensive changes as result of the administrative survey. In one instance the State agency had not been able, due to war conditions, to find particularly well qualified persons to fill the vacancies caused by resignations to enter military service and the simultaneous expansion of the vocational rehabilitation program. The qualifications of some of the employees of this State agency were so near the minimum level described in the State plan that a question as to the desirability of rewriting the job qualifications was raised by the Federal office. It was felt that with more clearly enunciated statements of qualifications in the State plan, the application of the standards to specific cases would be more easily made and improvement in selection more easily discernible. In this instance as in others the services of management specialists are made available to assist the State agency in carrying out whatever plan of action is decided on—for example, here, experts in personnel methods and practices will assist the State in developing new descriptions of personnel qualifications.

Plans of action based on administrative surveys vary in the comprehensiveness of the changes required. In one instance, we helped a State agency to effect a plan of reorganization which eliminated grounds for criticism which had been levelled at the agency by another unit of the State government. This new plan of organization provided means for services to be made more readily available to the disabled through the creation of seven district offices in lieu of the two which were attempting to serve a population in excess of that of the average State in the Nation. These changes called for reorganization which was comprehensive in scope and in effect.

Other surveys, some of a week's duration only, assisted State agencies in identifying major administrative problems and in mapping a course for improvement. In a smaller State in which services are provided to both the blind and the sighted disabled by a single agency, the survey indicated that the program was not actually being administered as one. The staff covering services to the blind were covering the same large territory as the staff giving counseling services to persons having other types of disability and little coordination existed between services to the two groups. When this was pointed out and possible solutions discussed the State director and the State board took definite steps to improve the efficiency of the program.

Administrative surveys were conducted for 21 State agencies during the past fiscal year. Through these administrative surveys the State and Federal offices cooperated in working out problems which otherwise would have stood between the disabled person and the services to which he is entitled.

The installation of time studies also began during 1947 as a means of measuring the amount of time a counselor or other agency employee expends in the various activities of the rehabilitation process and the time devoted to specific disability groups. Such evaluation assists in determining what constitutes an adequate case load per counselor, and this information, in turn, is basic to any consideration of staffing requirements in a State agency. Two State agencies installed on try-out basis time study systems developed by this office, and additional agencies are planning to install such systems at an early date.

Another instrument of planning is the State budget which is prepared semiannually. This document has a meaning greater than the sum of its parts. It is more than just a collection of figures. Its preparation by the State agency involves all the foresight and all the planning ability which can be brought to bear. The budget has been called the "State plan with the dollar sign." Through the semiannual budget the State transmits to the Federal office its best estimate of the number of disabled persons in the State who will be served in the period covered by the budget, the type of services which they will be given—whether medical or surgical, training, maintenance, or other, the cost of each type of service, the number of personnel needed and the cost of employing them.

If the budget is to be a true forecast of agency operations it must be based on an intimate knowledge of the technical phases of the program as well as the administrative. Someone in the State agency must know, for instance, how many cardiacs, epileptics, and psychoneurotics were given service by the agency in the immediate past. Someone must add to this knowledge realistic planning for services to the disabled in the coming period—planning which includes the number of each disability in the population and whether persons with these disabilities are on the increase or decrease, the most recently discovered treatments for them and the cost of these treatments. Someone in the State agency must also know how the provision of services to these disabled persons will affect staff requirements, the trends in salaries, and the availability of qualified personnel. A complete understanding of the interrelationship of these various factors on the operations of the State agency will be the basis for the final judgment of the State director and the State board in the completion of the budget statement.

With these State budgets as primary data, this office certifies grants to the States. Budgets which over-estimate actual expenditures of the State agency when the period is looked at in retrospect have perhaps seriously affected the operations of other State agencies which might have used the Federal funds available during the period to excellent advantage. On the other hand, agencies which underestimate their expenditures perform a disservice in that program requirements are likewise under-estimated and the program suffers throughout the nation.

During the past fiscal year, 510 grants were prepared and 1,020 financial reports and budgets analyzed. Grants to State agencies totaled $14,186,924.

From the administrative angle the budget document is used in the Federal office for evaluating organization and staffing of State agencies. An unsolved question which may have arisen in relation to State plan amendments, for example, may be highlighted or clarified through analysis of budget material. A problem in costly administration may be brought into focus from Budget information which shows that the case load per counselor is extremely low. On the other hand, a lead may be found which may result in improving the quality of case counseling and of rehabilitation work in general in budget material which indicates that case loads are unreasonably high.

More than 100 budget estimates were reviewed for this purpose during 1947.

Annual fiscal audits are made of State expenditures. These and the regular financial reports of expenditures provide graphic records of the use of State and Federal funds. The analysis of these reports and audits gives a picture of the agency program and provides a basis for future planning.

During the 1947 fiscal year, 49 fiscal audits were made.

These comments on administrative surveys, budget reviews, and fiscal audits are only part of the story of management and fiscal services rendered during the past year. Other aspects of this office's management and fiscal services such as development of standards, working with special committees of the States Rehabilitation Council, review of plan amendments, and development of a systematized Vocational Rehabilitation Manual, were equally important.

Information Services

In accordance with the mandate of Congress to "provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment," this office continued to press vigorously during the past fiscal year a public information program to explain the "who, what, where, why, and how" of the State-Federal partnership. Our informational activities were aimed at stimulating:

(1) Employer acceptance of the fact that men and women with physical limitations who have been properly prepared for and properly placed in employment are the equals in every respect of so-called able-bodied workers.

(2) Knowledge among the disabled themselves that a nation-wide program of vocational rehabilitation exists to help them overcome physical and mental impairments which constitute barriers to suitable employment.

(3) Cooperation between public and voluntary agencies and individuals interested in the rehabilitation of the physically and mentally handicapped so that the results will be ever-increasing mutual referrals of cases, effective utilization of the services of the various agencies, staff development, exchange of information, and development of joint operating programs.

(4) More widespread understanding among Americans in general that there is a way by which their relatives, friends, and neighbors who have suffered job handicaps through illness, accidents or other causes can preserve, develop, or have restored their fullest possible working ability.

To accomplish these aims in the 1947 fiscal year, the Office of Vocational Rehabilitation channeled its information services along lines which careful consideration indicated would answer most adequately the needs of the Nation-wide program and be most helpful to State agencies in providing aid to the disabled. In furthering our information efforts, we have been mindful of the feeling of the House Subcommittee on Aid to the Physically Handicapped, as expressed in its 1946 report, that:

> The agencies of the Federal Government administering services to the physically handicapped should devote a portion of their efforts to the removal of psychological and emotional barriers which exist in the public mind and hinder the friendly acceptance of physically handicapped people for their own worth.

Informational services of 1947 fit into seven major categories:

Consultative services to State agencies.—This is a continuing type of service and one which accounts for the greatest portion of the information staff's activities inasmuch as only three State agencies employ full-time, experienced information people. In fact, the entire output of this office's information staff is designed to facilitate the mission of the State rehabilitation agencies in discharging their responsibility of informing the handicapped, employers, labor, the medical profession, other appropriate groups and the general public of the services available, their purpose, their effectiveness, and their economic and social value. For the first time since the Office of Vocational Rehabilitation was established in 1943, we were able in the past fiscal year to contact each State director, either individually or in groups, to discuss the pressing need for well-planned, comprehensive information programs on the operating level. In addition, in response to requests from individual State directors, we made special field trips to Oklahoma to set up a schedule of procedure for informing the residents of Garfield County about and enlisting their support in a project—the first of its kind ever undertaken—whereby, among other things, the State agency hopes to obtain more specific data as to the percentage of the disabled in the general population; to Wyoming to suggest a basic information plan which would alleviate indigenous problems of isolation and poor communication; to Wisconsin to discuss establishment of a State information program on a decentralized basis; to New Jersey to help promote an amputee clinic, which also was the first in the United States; to Delaware to assist the State director in mapping out a series of radio broadcasts to tell the story of vocational rehabilitation; to Maryland to draw up and execute an informational plan for an industrial training institute for the blind, which was compiled into a manual for the future use of other State agencies which might conduct similar institutes.

Press releases.—Since newspapers reach a large proportion of the public we naturally turned to this medium as often as we felt that developments in the State-Federal program warranted. In the past fiscal period, we prepared and issued 21 press releases dealing with various topics and prepared especially for the States four draft press releases which required only the insertion of appropriate names and figures to localize the stories for issuance by the individual directors. It is impossible for us to determine how many millions of people we reached through the newspapers, but, based on volume of output and clippings from daily newspapers in all States of the Union, we know that our audience was greater than ever before. In addition to formalized releases, we cooperated with the press and wire services by filling numerous requests for background material, "local angles" and photographs.

Radio production.—The Office of Vocational Rehabilitation undertook and completed during 1947 the most comprehensive schedule of radio production in its existence. The chief project in this field was the writing and production of David Felton, Counselor, a series of 13 dramatized 14½-minute shows based on real-life triumphs over physical and mental job handicaps. Each transcription was made with an "open end," a device which State or district offices could utilize for local vocational rehabilitation announcements. Fifteen suggested local announcements, plus detailed suggestions for obtaining the widest possible coverage, were made available to the States in connection with this series of radio shows. We received more than 300 requests from the States for these transcriptions. Furthermore, the National Broadcasting Co. reviewed David Felton, Counselor, in its magazine, Thesaurus, with the result that 77 radio station all over the Nation contacted us to signify their willingness to book the series. On the basis of the increased interest in this series, in relation to previous productions, vastly more than 25,000,000 persons (previously our largest audience) will hear all or some of the David Felton, Counselor, series. In addition to this major production, information personnel prepared three draft scripts for State agency use; 26 special-events spot announcements in connection with the State and Federal programs; and scripts for 3 interviews.

Special articles.—In response to requests from editors, 25 special articles were written for magazines, encyclopedias, and professional publications. The publications included the Annals of the American Academy of Political and Social Science, the American Annals of the Deaf, the Journal of the American Medical Association, American Journal of Occupational Therapy, Handbook of Adult Education in the United States, Encyclopedia Americana, Encyclopedia Britannica, Social Work Yearbook, the New International Year Book, the Journal of Rehabilitation, the Civitan, Handicap.

Pamphlets.—During 1947, we further expanded our information materials by producing six more pamphlets:

CIVILIAN AMPUTEES IN ACTION! (50,000 copies), a basic publication for general distribution, which answers many questions confronting amputees. (Written by Dr. Henry H. Kessler, chairman of the Rehabilitation Committee of the American Medical Association's Council on Industrial Health and Consultant to the Office of Vocational Rehabilitation on orthopedics and prosthesis, with portions by Donald Kerr.)

OPPORTUNITIES FOR THE TUBERCULOUS (75,000 copies), written in collaboration with the National Tuberculosis Association as an easily understood guide for men and women with arrested tuberculosis.

PHYSICAL REHABILITATION OF THE AMPUTEE (3,500 copies), a guide for rehabilitation counselors in providing services vital to successful rehabilitation of amputees. (Written by Dr. Henry H. Kessler.)

STARTING A SMALL BUSINESS (12,500 copies), a compact guide for those whose abilities and aptitudes are such that self-employment is suitable as an occupation. (An adaptation of a speech by Sidney Carter.)

JULY 6, INDEPENDENCE DAY FOR DISABLED CIVILIANS (5,000 copies), a comprehensive reference work which outlines the achievements of the State-Federal program since 1943, past, present, and future needs, and social and economic values of the program.

Opportunities for the Blind and Visually Handicapped (175,000 copies), a basic guide for this particular group of the disabled population. (Written in 1947; production continued in 1948.)

Also, during the past fiscal year, we completed the printing and distribution of three pamphlets which had been started in 1946. These were:

Vocational Rehabilitation for Civilians (250,000 copies), our basic publication for general distribution.

The Doctor and Vocational Rehabilitation for Civilians (250,000 copies), a handbook for the medical profession and suppliers of medical services which the American Medical Association distributed to each of its 125,000 members. The American Hospital Association also furnished its 7,500 members with copies.

Opportunities for the Deaf and the Hard of Hearing (50,000 copies in original issue; 20,000 copies in reprint), a basic publication for this segment of the disabled population.

Motion picture, posters, displays.—During 1947, the staff completed production of a 2½-reel sound-color motion picture entitled "Comeback." General showings began in March. Since then 120 prints have gone into circulation and constant use in the United States. Several foreign countries have purchased copies. Before the close of the fiscal year, "Comeback" was shown to 463 audiences comprising more than 42,800 persons. It has been received enthusiastically everywhere—by employer, medical, educational, labor, civic, and handicapped groups.

Construction of a large, demountable exhibit which tells graphically the salient features of the State-Federal partnership was an important project of 1947. It was displayed across the Nation at conventions, meetings, and conferences of various groups interested in the welfare of the disabled.

We were fortunate in obtaining without cost, as war surplus material, 115 portable exhibit frames and carrying cases. Each frame is four 20- by 30-inch wooden sections, which are hinged together for ease in handling. These were distributed to the States, and proved so effective that many States have built additional duplicates for widespread use.

Placard and poster work included the preparation and production of the following:

(*a*) A 4-panel display (250 copies) for use in portable exhibit frames.

(*b*) A 5-panel display (500 copies) for use in portable exhibit frames. This display minimizes disability; emphasizes ability, as well as preparation of rehabilitated workers for suitable jobs, and informs employers that it is good business to hire rehabilitated workers.

(*c*) The above-mentioned display (*b*) redone as a single self-supporting piece (300 copies).

(*d*) A 17- by 22-inch poster addressed to employers for use of State agencies, which was started in 1947 but not completed until 1948 (25,000 copies).

(*e*) Two 17- by 22-inch posters (60,000 copies) designed to stimulate job-finding and case-finding for display in all first-, second-, third-, and fourth-class post offices in the United States, Alaska, Hawaii, and Puerto Rico, and all branches and stations of first-class post offices. These were started in fiscal year 1947 but not completed until 1948.

District of Columbia Rehabilitation Service

The case load of the District of Columbia Rehabilitation Service during the fiscal year 1947 totaled 4,213, of which 528 were referred by the District of Columbia Board of Public Welfare. A total of 303 disabled persons completed rehabilitation during the year. The 1946 case load was 4,106 disabled men and women.

Services rendered during 1947 consisted of 1,753 physical and psychiatric examinations, of which 1,025 were secured without cost; medical, psychiatric, and surgical treatments for 107 clients; prosthetic appliances for 133 clients; educational and employment training for 211 clients; and maintenance during rehabilitation for 53 clients. In addition, counseling and guidance were rendered to these and other disabled individuals to assist them in resolving their vocational and other problems and in making a suitable work adjustment.

During the fiscal year, the Medical Advisory Committee, the Labor-Management Committee, and the Committee on Services to the Visually Handicapped were active in providing advisory assistance for the establishment of standards and interpretation of the program to the community. With the cooperation of the District of Columbia Board of Education, a Student Advisory Committee was established to assist the District of Columbia Rehabilitation Service in interpreting the program and its benefits to the younger-age groups.

The District of Columbia Rehabilitation Service was designated as the licensing agency in the District of Columbia for the administration of the vending stand program in Federal and other buildings under the Randolph-Sheppard Act. A total of 59 stands was in operation during the year in Federal and other buildings. The average annual earnings of the blind operators employed on these stands was about $3,500.

OVR Cooperation with Others

The Office of Vocational Rehabilitation continued its leadership role in stimulating cooperation among public and voluntary organizations to provide coordinated services and facilities for the disabled. We entered into three new written cooperative agreements in 1947, thus increasing to 19 our total of such agreements. The new signatories are the Veterans Administration, the National Fraternal Society of the Deaf, and the National Society for the Prevention of Blindness.

Supplements to clarify procedures under existing agreements with the United States Employment Service and the Farmers Home Administration were also completed, and the agreement with the American Hearing Society was revised and brought up to date. Upon request, several States were assisted in working out cooperative agreements at the operating level. At the close of the fiscal year, agreements were being negotiated with the following national organizations:

For the General Rehabilitation Program:

The Convention of American Instructors of the Deaf.
The Conference of Executives of American Schools for the Deaf.
The National Foundation for Infantile Paralysis, Inc.
The Office of Indian Affairs.
The American Heart Association.

For the Business Enterprise Program for the Blind:

The War Department.
The United States Public Health Service.
The Veterans Administration.
The Post Office Department.
The Treasury Department.
The Public Buildings Administration.

In addition to developing formal agreements at the national level for continuation by the States at the operating level, we worked with cooperating groups toward solution of common problems at both the national and local levels. With the States Rehabilitation Council, composed of the directors of State rehabilitation agencies, staff members served on committees devoted to working out minimum standards and recommended procedures for the Business Enterprises Program, staff development, program evaluation, and other problems.

Also, this Office participated actively on the following interagency and other committees sponsored by the Retraining and Reemployment Administration:

Committee on Rehabilitation Services for Severely Disabled Persons.
Committee for Developing Criteria for On-The-Job Training for Veterans in Agricultural, Nonagricultural, and State and Local Government Operations.

Federal Interagency Committee for the Employment of the Physically Handicapped.
  (*a*) Subcommittee on Policy.
  (*b*) Subcommittee on Public Information.
Committee on Coordination of Statistical Services Related to Retraining and Reemployment.

We were represented also on the subcommittee on compensation for service-connected injury or illness of the Safety and Health Committee of the Council of Personnel Administration; the statistics subcommittee of the Association for the Advancement of Research in Multiple Sclerosis.

Among 1947's other cooperative activities especially noteworthy were the following:

(1) The completion of the studies begun in 1946 of in-sanatoria rehabilitation programs in six selected sanatoria by a team composed of representatives of the National Tuberculosis Association, the United States Public Health Service, and this Office.

(2) The development of a plan whereby nonresident patients of the National Jewish Hospital in Colorado will be provided with rehabilitation services.

(3) In collaboration with the National Tuberculosis Association, a review and follow-up of plans developed by each State at workshops on special techniques for the rehabilitation of the tuberculous, and arrangements for coordination of the field services of this Office and those of the association in 1948 so that more effective rehabilitation of the tuberculous may be realized.

(4) A study of existing hearing clinics made in cooperation with the American Hearing Society.

(5) Development with the Farmers Home Administration and the Regional Offices of the Office of Vocational Rehabilitation of an effective statistical reporting system of the monthly referrals and acceptances of cases on a State basis.

(6) Commencement of a cooperative project with the Veterans Administration in the preparation of technical bulletins for predicting success in specific occupations.

(7) Participation in the Veterans Administration seminar on the vocational rehabilitation of veterans with hearing and/or speech impairments.

(8) Extended conferences with representatives of the Canadian Department of Veterans Affairs.

(9) Arrangements for the United Nations Relief and Rehabilitation Administration of itineraries for study of American rehabilitation practices by rehabilitation workers of Czechoslovakia and China and extended conferences with them.

(10) Progress on the matter of integration of the education and rehabilitation of the deaf and the blind through a special conference held for that purpose.

(11) Inauguration of a bimonthly publication, Rehabilitation Abstracts, which is composed largely of digests by State workers of articles from professsional and technical publications pointed toward advancement of professional performance of State personnel.

Other projects of unusual significance were:

(1) Preparation of a document, Vocational Rehabilitation Aspects of a Program for National Security, for incorporation as part IV of the Report to the President's Advisory Commission on Universal Training Prepared in the Federal Security Agency.

(2) Preparation of a document outlining the organization and plans for a research and adjustment center for the blind, as recommended by the National Research Council, at Old Farms Convalescent Hospital, Avon, Conn. Preparation of the document involved conferences with the War Department, the National Research Council, and the Bureau of the Budget.

(3) Analysis of grants-in-aid formulae in other programs, with particular emphasis on reviewing feasible equalization formulae which might be applicable to rehabilitation grants-in-aid.

(4) Preparation of a statement concerning the District of Columbia Vocational Rehabilitation Service for presentation to the Subcommittee on Home Rule and Reorganization of the Committee on the District of Columbia.

SPECIAL PROJECTS, STUDIES OF THE STATES AND THE CENTRAL OFFICE

Rehabilitation Centers

Interest in rehabilitation centers mounted in 1947. In general, such centers are thought of as providing special services for the severely disabled, and other services of a type which are not readily obtainable in the general locality.

The most outstanding undertaking was Virginia's rehabilitation center, near Staunton. Houses in a portion of the Army's former Woodrow Wilson General Hospital, it accommodates up to 400 clients on a resident basis. A complete range of services is provided, and the physical plant offers excellent facilities. Although clients were not in residence at the close of the fiscal year, a large number were selected and were to arrive in the fall of 1947.

In Louisiana and Pennsylvania, new centers were planned in connection with hospitals. The Pennsylvania center already has begun operation, and that in Louisiana was expected to begin in 1948.

Amputee Clinic

In view of the shortage of facilities for training civilian amputees in the fit and use of artificial limbs, the Office of Vocational Rehabilitation in 1947 undertook to stimulate the medical profession and the State agencies to provide and obtain more adequate training of the type needed. Dr. Kessler conducted a trial 1-month amputee clinic at Hasbrouck Heights, N. J. The attendance of physicians and surgeons was so encouraging that three more clinics of shorter duration were projected for 1948.

Hansen's Disease Project

In cooperation with the United States Public Health Service and the Louisiana Vocational Rehabilitation agency, this Office planned a survey for the fall of 1947 of the problems of vocational rehabilitation of persons hospitalized at the National Leprosarium, Carville, La. When the survey is completed, it is anticipated that the Public Health Service will institute an in-hospital program of occupational and physical therapy and that a vocational rehabilitation counselor will be assigned by the State Vocational Rehabilitation agency, the scope and type of all services being predicated on the need as shown by the study.

Although from the standpoint of the State agency this will not be a physical restoration project, considerable medical guidance must be had from the hospital staff and from the State Medical Administrative Consultant. The vocational rehabilitation of persons with Hansen's disease presents a real challenge; and the most difficult problem in many cases will probably be placement in the face of the general public fear of the disease.

United States Public Health Service Hospital, Fort Stanton, N. Mex.

A study of the rehabilitation needs of patients at the United States Public Health Service Hospital, Fort Stanton, N. Mex., was also planned in cooperation with the Public Health Service and the New Mexico State Director of Vocational Rehabilitation. The patients at this hospital have tuberculosis in all stages. There appears to be a real need for good vocational rehabilitation counseling of the patients who are feasible. This study was scheduled for September 1947.

Oklahoma Pilot Project

The Oklahoma Division of Vocational Rehabilitation was assisted in organizing and initiating a project designed to study the effect of intensive rehabilitation services in a restricted population. This pilot project was inaugurated in Garfield County, Okla. One of the major results of this study will be a determination of the number of persons eligible for rehabilitation in the population studied.

Facilities for the Severely Disabled

Considerable interest has been evidenced in recent years in facilities available to handicapped persons, particularly those who are very severely disabled. In consequence of this interest, the Office of Vocational Rehabilitation during the past year started preparation of a study on available facilities for services to the disabled in the United States.

Nebraska Blind Study

The Governor's committee in Nebraska availed itself of this Office's statistical consultative services in connection with its study of services to the blind in Nebraska. An intensive study was made of the case load of the Nebraska Agency for the Blind, as well as of services being given by that agency to blind clients.

SERVICES PROVIDED BY THE STATES

Number of Persons Served

State rehabilitation agencies and State commissions or other agencies for the blind reported a total of 303,455 disabled persons on their registers during the fiscal year ended June 30, 1947, an increase of 13.6 percent over the total of 267,047 on the registers during the fiscal year 1946. Of those on the registers, 170,141 received rehabilitation services during the 1947 fiscal year, as compared with 169,796 who received such services during the previous fiscal year. However, revisions in the definitions of case classifications, effective July 1, 1946, resulting in more work being done on cases before acceptance for rehabilitation services, introduced a factor of selectivity which makes the figures for the two periods not exactly comparable, and accounted, at least in part, for the small increase.

On the other hand, evidence of progress in the rehabilitation program is brought out by an analysis of the cases served, which reveals, among other facts, a marked increase in the number of disabled persons rehabilitated (cases closed as employed). During the 1947 fiscal year, 43,874 of the 170,141 disabled persons served were rehabilitated, which represents an increase of 21.5 percent over the 36,106 rehabilitated during the 1946 fiscal year. There was a decrease in the number of persons whose cases were closed after having been provided some rehabilitation service, but who did not meet the requirements for classification as "rehabilitated." Cases closed after having received some rehabilitation service in addition to counseling and planning, but who were not placed in employment for such reasons as personal factors, aggravated disability, or death, decreased 15.2 percent—from 3,121 during the 1946 fiscal year to 2,647 during the 1947 fiscal year. There was a sharp decrease, 27 percent, in the number of persons whose cases were closed after being interviewed and without receiving services beyond counseling and planning; only 19,899 such cases were closed during the 1947 fiscal year in contrast with 27,274 during the previous fiscal year. The reasons for closure of these cases were varied—indifference of the client, probable increase in degree of disability of the client, loss of contact with the client, further services not needed, etc. Greater care in selecting for service those persons eligible for and able to profit from rehabilitation services was no doubt an important factor in the decrease in this type of closure.

There was also a sharp drop in the number of disabled persons whose cases were transferred to some other rehabilitation agency after having been provided some rehabilitation services. The decrease was 45.8 percent—from 1,844 during the 1946 fiscal year to 999 during the 1947 fiscal year.

At the close of the 1947 fiscal year, 102,722 disabled persons had received some rehabilitation service during the fiscal year 1947 and were still on the rolls in various stages of the process of rehabilitation. Although this number represents an increase of only 1.3 percent over the total of 101,451 in process on June 30, 1946, the small increase was related to a certain extent to the revision in definitions of case classifications. Included in this group of 102,722, were 45,591 persons who were either undergoing diagnosis or were receiving counseling and for whom a rehabilitation plan was being formulated—a decrease of 9.2 percent from the 50,227 who were in this category on June 30, 1946; however, the selectivity factor introduced at the beginning of the 1947 fiscal year was reflected in this decrease. The only other group of cases included in the total group of 102,722 to show a decrease was the group for whom a plan had been completed but not initiated; there were 5,839 in this category on June 30, 1947, compared with 6,596 on June 30, 1946, a decrease of 11.5 percent.

Physical Restoration, Training Increase

Further evidence of the progress of the rehabilitation program was the marked increase in the number of persons who were being prepared for employment through physical restoration or training. On June 30, 1947, there were 32 percent more disabled persons receiving physical restoration services and 6.5 percent more receiving training than were receiving such services on June 30, 1946, increasing from 6,914 to 9,124 and from 21,709 to 23,115, respectively. Also included in those on the rolls at the close of the 1947 fiscal year were 5,637 disabled persons who had completed their rehabilitation except for being placed in employment, an increase of 40.5 percent over the 4,012 who were ready for employment at the close of the 1946 fiscal year, and 7,701 who were in employment but being followed up in order to be sure their placement was satisfactory before being closed as rehabilitated, an increase of 7.9 percent over the 7,135 in this category on June 30, 1946. In addition, there were 5,715 disabled persons on the rolls on June 30, 1947, for whom preparation for employment had been started but had been interrupted temporarily—17.6 percent more than the 4,858 so classified at the close of the 1946 fiscal year.

During the 1947 fiscal year, the cases of 45,319 persons who had been referred to the State agencies and were on their registers, were closed after investigation without receiving rehabilitation services, while during the 1946 fiscal year, 40,998 such cases were closed. This increase—10.5 percent—was at least partially attributable to the fact that the revisions in definitions of case classifications, effective at the beginning of the 1947 fiscal year, extended the scope of investigation, resulting in more careful selection of cases for placement on the active rolls and therefore more cases that were not eligible for or not able to profit from rehabilitation being closed in this category. The major reasons for closure of these cases are as follows: services declined, services not needed, individual not eligible, individual not sufficiently cooperative to make rehabilitation possible, individual needed services other than vocational rehabilitation, referred to other agencies, and migratory shifting by the individual.

The broadening of the scope of investigation was also reflected in the sharp increase—56.4 percent—in the number of persons awaiting acceptance for rehabilitation services. At the close of the 1947 fiscal year there were 87,995 persons on the registers of the State agencies, who were in referred status and were awaiting investigation or were being investigated, before being accepted for rehabilitation services, while on June 30, 1946, there were 56,253 in the similar but not exactly comparable "reported" status.

Sources of Referral of the Disabled

The State agencies and the Office of Vocational Rehabilitation cooperate with a number of public and private agencies with related programs in order that disabled persons who are in need of rehabilitation services may be brought to the attention of the State rehabilitation agencies and the State commissions or other agencies for the blind which provide such services. In addition to cases referred by these cooperating groups, cases are also referred by other interested groups and individuals such as social agencies, hospitals, churches, city and county officials, doctors, and employers. The sources of referral of new cases are shown in table 6 in the appendix.

During the fiscal year 1947, the State employment services (formerly the U. S. Employment Service) accounted for 13.6 percent of the total number of cases referred to the State agencies—a larger percentage than that for any other type of agency. Three other types of agencies each accounted for more than 8 percent of the new cases referred—public welfare agencies, 12.9 percent; public schools, 10.3 percent; and State workmen's compensation agencies, 8.3 percent of the total. Individuals other than physicians, public officials, and employers, referred 7.5 percent of the new cases. Health sources as a group referred 20.7 percent of the new cases, while 12.6 percent of the new cases were referred by educational sources.

Services Received by the Disabled

Many different services are made available to disabled persons through the State rehabilitation agencies and the commissions or other agencies for the blind. Some of the services are involved in determining the eligibility of the person and whether he is able to profit from rehabilitation; others are the general and specialized services which the disabled person receives as part of his rehabilitation process. The services furnished are either provided by the staff of the State agency, purchased by the State agency, or obtained without cost to the State agency.

During the past fiscal year, as a result of the revised reporting system, information was available for the first time regarding the number of persons receiving each type of service, regardless of whether it was a purchased service, a service obtained without cost, or one provided by the staff of the agency, or a service furnished through a combination of two or all three of the methods. The data collected on the revised form during the 1947 fiscal year are therefore not comparable with the data collected during the previous fiscal years. The number of persons receiving the various types of services is presented in table 7 in the appendix.

Data concerning the number of clients for whom services were purchased during the 1947 fiscal year are available from the quarterly financial reports, and are used in the following paragraphs in comparison with the data from the form for the 1946 fiscal year. In general these comparisons reveal increases in the number of clients for whom physical restoration and related services were purchased and decreases in the number for whom training and related services were purchased.

During the 1947 fiscal year, medical examinations were purchased for 74,679 clients, a 39.6 percent increase over the 53,512 for the 1946 fiscal year, while psychiatric examinations were purchased for 2,010 clients during the 1947 fiscal year in comparison with 1,050 for the 1946 fiscal year—an increase of 91.4 percent.

The State agencies purchased prosthetic appliances for 11,717 clients during the 1947 fiscal year and 8,287 during the 1946 fiscal year, an increase of 41.4 percent. Included under prosthetic appliances are artificial limbs, braces, hearing aids, glasses, surgical appliances, and repairs to appliances. The number of clients for whom medical, psychiatric, surgical, dental, and other treatments were purchased increased 48.8 percent—from 7,217 to 10,742.

In connection with medical services, maintenance was purchased for 806 clients, a 17.5 percent increase over the 686 for the 1946 fiscal year, and transportation was purchased for 2,703 clients, an increase of 51.0 percent over the 1,790 during the 1946 fiscal year.

The number of clients for whom hospitalization and related care were purchased during the 1947 fiscal year also showed substantial increases over the number for the preceding period. There was an increase of 36.5 percent in the number of clients for whom hospitalization was purchased, from 5,570 to 7,604; an increase of 18.7 percent in the number for whom canvalescent home care was purchased, from 107 to 127; and an increase of 61.0 percent in the number for whom physical and occupational therapy was purchased, from 364 to 586. Nursing home care was purchased for 18 clients during the 1946 fiscal year and for 47 during the 1947 fiscal year.

Training in educational institutions such as colleges, universities, business schools, and the like was purchased for 21,985 clients during the 1947 fiscal year, 12.2 percent less than the number, 25,028, for the 1946 fiscal year. The number of clients for whom employment training was purchased decreased 19.3 percent—from 4,311 during the fiscal year 1946 to 3,480 during the fiscal year 1947. Correspondence training was purchased for 1,830 clients, an increase of 7.2 percent over the number, 1,707, for the 1946 fiscal year, and tutorial training was purchased for 2,551 clients, an increase of 2.0 percent over the number, 2,501, during the fiscal year 1946.

Training supplies and equipment were purchased for 11.2 percent fewer clients during the 1947 fiscal year than during the preceding fiscal year, a decrease from 16,218 to 14,396. The number of clients for whom maintenance during training was purchased showed a 19.3 percent decrease from 15,366 during the fiscal year 1946 to 12,404 during the fiscal year 1947. There was a slight increase, 6.2 percent, in the number of clients for whom transportation in connection with training was purchased—from 4,243 to 4,504.

There was a sharp increase—93.7 percent—in the number of clients for whom placement equipment was purchased; placement equipment was purchased for 1,208 clients during the 1946 fiscal year and for 2,340 during the 1947 fiscal year. The number of clients for whom occupational licenses were purchased increased 9.4 percent—from 234 to 256.

In connection with the figures reported above for medical, surgical, and other treatment, and for prosthetic appliances, it should be pointed out that a particular client may have been included more than once. For example, if a client had both medical and psychiatric treatment purchased for him, he would have been counted twice, or if both an artificial limb and glasses were purchased for a particular client, he would have been counted twice under prosthetic appliances.

Characteristics of and Services to Persons Rehabilitated in the Fiscal Year 1947

The scope and character of the rehabilitation services that are furnished disabled persons by the State agencies can best be evaluated from a statistical analysis of the cases rehabilitated. A good idea of the characteristics of the various groups that have been served recently can also be obtained from a study of these rehabilitants. The data for the following analysis have been estimated from preliminary tabulations of the closed case reports for 38,773 persons rehabilitated during the 1947 fiscal year and are subject to revision.

Characteristics of the Rehabilitants

Of the 43,874 persons rehabilitated during the fiscal year 1947, approximately 72 percent were men, and 28 percent were women. In the past 4 years, since the vocational rehabilitation program for civilians was expanded, the percentage of women rehabilitated has increased steadily from 16 percent of the total number of persons rehabilitiated during the 1944 fiscal year to 28 percent in 1947. The proportion of women to the total number rehabilitants during the 1947 fiscal year was in accordance with the proportion of women in the labor force.

About 86 precent of the total group of rehabilitants were white and approximately 13 percent were Negro.

At the time these persons were surveyed for rehabilitation services, about one-half were between 15 and 30 years of age. Approximately 72 percent became disabled before they reached the age of 30. About 54 percent of them had reached an educational level of at least the ninth grade in school. Approximately 44 percent had one or more dependents.

The major source of support at the time of survey and the employment history give some indication of the economic status of the group. About 43 percent of the 43,874 persons were dependent upon their families for support, and about 7 percent were dependent on relief, only 34 percent were living on their wage earnings or on independent incomes, about 8 percent of the group were supporting themselves from insurance benefits, and another 8 percent had other means of support than those specified here. Although 34 percent of these persons were living on their wage earnings or on other income, only 24 percent of the total group were receiving wages at the time of survey and 76 percent were either unemployed or were farmers or family workers. Only 65 percent of the total group had ever held substantial jobs, and about 35 percent had never worked or had only worked part time.

Disabilities of the Rehabilitants

Approximately 51 percent of the total group became disabled from disease, 31 percent through employment or other accidents, 15 percent were born with their impairments, and the disabilities of the remaining 3 percent were incurred from service with the armed forces or from service with civilian defense. Persons with various types of orthopedic impairments—amputations, congenital absence of members, impairment of function—constituted about 48 percent of the total number of persons rehabilitated during the 1947 fiscal year. Persons with impairments of function resulting from other than poliomyelitis and cerebral palsy totaled 11,845; resulting from poliomyelitis, 2,683; and resulting from cerebral palsy, 506. Persons with amputations or congenital absence of members totaled 5,985.

There were 5,136 persons who were blind or had visual defects, 3,393 who were deaf or had hearing defects, and 388 who had speech defects.

Pulmonary tuberculosis was the disability of 3,555 persons, while 1,710 had cardiac disease, 1,686 had hernia, 1,152 had female disorders, 317 had asthma, 260 had stomach ulcers, and 2,805 suffered from other generalized diseases.

There were 2,453 persons who suffered from mental disorders or from mental deficiency. Of this number, 1,007 were incapacitated because of psychoneurosis, 577 because of epilepsy, 291 from mental deficiency, 216 from psychoses, 105 from psychopathic personality, 164 from nervousness, and 93 from other mental or nervous disorders.

Services to the Rehabilitants

Rehabilitation is a continuous service which begins when the diagnosis is made and ends only with the best possible medical, social and economic adjustment of the individual. The 43,874 persons who were rehabilitated were given services related to their individual needs and ultimate rehabilitation requirements. The services included counseling and guidance, physical restoration, maintenance, transportation, occupational tools and licenses, vocational training, and placement. About 32 percent of the group were given vocational training, either to develop entirely new skills and capacities or to supplement those previously acquired in order to prepare them for suitable employment. Of those trained, about 23 percent were trained in colleges or in universities, 20 percent in business establishments, 21 percent in business colleges, 16 percent in private trade schools, 9 percent were trained in public vocational schools, and the remaining 11 percent were trained by tutors, or through correspondence, college, or university extension courses, etc.

An important fact revealed by an examination of the various jobs in which these 43,874 rehabilitated persons were employed at the time of closure, is the range of training and skills required for the jobs represented. Approximately 17 percent of the persons rehabilitated during the 1947 fiscal year were employed in skilled occupations, such as watchmakers, jewelers, automobile mechanics, etc. About 16 percent were in clerical occupations such as typists, stenographers, general office workers, bank clerks, etc. Almost 15 percent were in semiskilled occupations and 14 percent in service occupations, while 9 percent were working at unskilled jobs. About 8 percent were in professional or semiprofessional occupations such as teachers, engineers, accountants, and draftsmen. The remaining 21 percent were employed in managerial, sales and related positions, or became agricultural or family workers. Thus, we continued to amass justification for our contention that a handicapped person after rehabilitation, is fully capable of exercising either the skills he acquired before he became disabled, or the new skills developed in keeping with his physical disabilities.

Estimated Earnings of the Rehabilitants

On the basis of their employment status at the time these persons applied for rehabilitation services, the rate of total annual earnings for the group of 43,874 was estimated to be approximately $14,000,000. For the first year after rehabilitation the rate of total annual earnings for the group had increased to an estimated $68,000,000. These estimated annual earnings do not include the earnings of farmers and of family workers which were too difficult to estimate. The increased total annual earnings not only represents an increase of about 400 percent in earned income of the group of rehabilitants, but it also constitutes an increase of about $54,000,000 in the annual earned income of the nation. From a purely monetary standpoint, vocational rehabilitation is a sound financial investment, as the maintaining of the vocational rehabilitation program costs an average of about $400 per rehabilitation, and the total cost of rehabilitating the 43,874 persons will be more than repaid in a short time to the State and Federal governments in the form of income and other taxes which these men and women will be able to pay from their earned incomes.

The burden of an idle plant is costly to industry. For society as a whole nothing is so costly as an idle man who might be rehabilitated and placed in employment. Each time a disabled person is prepared for employment (rehabilitated) we add a productive unit to industry and promote the welfare of the State.

TABLE 4.—*Summary of case load during fiscal year ended June 30, 1947*

[Corrected to Sept. 18, 1947]

Total of cases registered [1]		303, 455
1. Cases receiving services [2]		170, 141
a. Closed—employed—rehabilitated	43, 874	
b. Closed—unemployed [3]	2, 647	
c. Closed—transferred to other agency	999	
d. Closed—other reasons [4]	19, 899	
e. Active case roll [5]	102, 722	
2. Cases closed from referred status [6]		45, 319
3. Cases in referred status [7]		87, 995

[1] Includes District of Columbia, Hawaii, and Puerto Rico.

[2] Revisions in the definitions of statuses, effective July 1, 1946, resulting in more work being done on cases before acceptance for rehabilitation services, and introducing a factor of selectivity, make the figure for this fiscal year not exactly comparable with those for previous fiscal years.

[3] Received services beyond counseling and developing of rehabilitation plan; closed because of personal factor of client, illness of client, aggravated disability of client, etc.

[4] Did not receive service beyond counseling and developing of rehabilitation plan; closed because of indifference of client, probable increase in degree of disability of client, loss of contact with client, etc. Type of closure reasonably comparable with "closed as interviewed and counseled" used in fiscal years 1944, 1945, and 1946; data are not exactly comparable with data of previous years because more care has been taken since the beginning of the 1947 fiscal year in selecting cases eligible and able to profit from rehabilitation services for placement on the active rolls.

[5] In process of rehabilitation on June 30, 1947. Revisions in definitions of statuses effective July 1, 1946, resulting in more work being done on cases before placement on the active rolls, introduced a factor of selectivity which makes the figure not exactly comparable with those for previous years.

[6] Service declined, services not needed, individual not eligible, individual not sufficiently cooperative to make rehabilitation possible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual. Type of closure reasonably comparable with "closed as reported and investigated" used in fiscal years 1944, 1945, and 1946. Data are not exactly comparable with data for previous years because since the beginning of the 1947 fiscal year more work is done on cases while in this status.

[7] Similar but not exactly comparable with "reported" status used in previous years. Revisions in definitions of statuses provided for more work being done on cases while in this status, before placement on the active rolls.

Source: Form VR: RS–100A, Case Load Summary Report (revised June 1946).

TABLE 5.—*Total case load, by agency, during fiscal year ended June 30, 1947*

[Corrected to Sept. 18, 1947]

Agency [1]	Total	Number closed during fiscal year 1947					Number on rolls on June 30, 1947	
		From active case roll				From referred status [4]	Active case roll [5]	In referred status [6]
		Employed (rehabilitated)	Unemployed [2]	Transferred to other agency	Other reasons [3]			
Total	303, 455	43, 874	2, 647	999	19, 899	45, 319	102, 722	87, 995
Alabama	9, 006	1, 372	156	85	536	320	3, 956	2, 581
Arizona	1, 118	126	3	2	105	174	343	365
Arkansas	5, 303	567	18	16	736	1, 342	1, 415	1, 209
California	23, 692	3, 205	290	104	1, 274	4, 734	7, 233	6, 852
Colorado	1, 847	155	1	29	68	314	606	674
Connecticut:								
Regular	5, 289	923	47	19	142	611	2, 775	772
Blind	178	51	15	6	10	11	78	7

See footnotes at end of table.

TABLE 5.—*Total case load, by agency, during fiscal year ended June 30, 1947*—Continued

Agency [1]	Total	Number closed during fiscal year 1947					Number on rolls on June 30, 1947	
		From active case roll				From referred status [4]	Active case roll [5]	In referred status [6]
		Employed (rehabilitated)	Unemployed [2]	Transferred to other agency	Other reasons [3]			
Delaware:								
Regular	2, 305	342	7	12	138	737	709	360
Blind	101	13	2	2	1	29	41	13
District of Columbia	4, 213	303	50	19	333	1, 201	1, 055	1, 252
Florida:								
Regular	5, 723	1, 014	98	28	402	1, 412	1, 490	1, 279
Blind	974	67	26	0	53	72	459	297
Georgia	26, 108	2, 755	57	67	779	2, 281	7, 079	13, 090
Hawaii:								
Regular	2, 555	113	9	12	90	224	465	1, 642
Blind	297	1	0	0	14	5	100	177
Idaho:								
Regular	1, 011	89	5	1	1	285	172	458
Blind	101	3	0	0	14	31	40	13
Illinois	10, 209	2, 082	87	47	1, 410	1, 328	4, 019	1, 236
Indiana:								
Regular	4, 646	682	30	10	517	237	2, 735	435
Blind	434	30	0	3	33	53	295	20
Iowa:								
Regular	3, 024	612	17	0	165	328	1, 338	564
Blind	88	15	0	0	0	19	43	11
Kansas:								
Regular	2, 176	336	27	14	284	295	650	570
Blind	239	44	0	1	10	27	120	37
Kentucky	6, 119	894	30	11	351	878	1, 762	2, 193
Louisiana:								
Regular	3, 834	859	21	16	371	474	1, 599	494
Blind	325	43	3	1	14	45	138	81
Maine:								
Regular	1, 867	292	42	0	99	442	487	505
Blind	102	17	4	1	1	32	34	13
Maryland	3, 779	515	58	22	382	493	1, 490	819
Massachusetts	3, 423	316	21	10	227	572	1, 067	1, 210
Michigan:								
Regular	18, 183	2, 972	168	40	614	2, 403	6, 307	5, 679
Blind	1, 016	156	45	3	160	114	417	121
Minnesota:								
Regular	6, 362	590	35	27	311	601	2, 608	2, 190
Blind	1, 004	136	4	7	103	359	229	166
Mississippi:								
Regular	5, 270	816	56	9	538	722	1, 572	1, 557
Blind	499	15	7	0	25	33	335	84
Missouri:								
Regular	3, 753	834	32	6	187	676	1, 130	888
Blind	621	68	22	4	24	73	355	7
Montana:								
Regular	1, 657	230	5	5	77	262	502	576
Blind	206	12	4	2	8	4	88	88
Nebraska:								
Regular	1, 398	173	11	6	64	360	375	409
Blind	81	9	10	1	1	13	33	14
Nevada	178	19	0	0	33	14	98	14
New Hampshire:								
Regular	808	78	8	6	151	180	201	184
Blind	52	9	0	1	9	1	31	1
New Jersey:								
Regular	4, 260	720	68	20	493	669	1, 844	446
Blind	460	77	27	6	32	29	236	53
New Mexico:								
Regular	931	104	6	21	41	234	250	275
Blind	87	7	1	1	0	3	59	16
New York:								
Regular	14, 869	2, 717	226	8	1, 649	2, 538	5, 714	2, 017
Blind	403	59	3	2	28	42	183	86
North Carolina:								
Regular	9, 146	1, 902	32	4	1, 252	604	3, 944	1, 408
Blind	1, 403	254	75	10	201	240	386	237
North Dakota	1, 448	174	0	7	98	158	592	419
Ohio:								
Regular	5, 881	1, 273	87	33	553	738	2, 277	920
Blind	1, 161	109	9	3	139	162	450	289

See footnotes at end of table.

TABLE 5.—*Total case load, by agency, during fiscal year ended June 30, 1947*—Continued

Agency [1]	Total	Number closed during fiscal year 1947					Number on rolls on June 30, 1947	
		From active case roll				From referred status [4]	Active case roll [5]	In referred status [6]
		Employed (rehabilitated)	Unemployed[2]	Transferred to other agency	Other reasons [3]			
Oklahoma	4,670	659	19	39	376	458	2,171	948
Oregon:								
Regular	3,100	336	16	8	194	474	1,029	1,043
Blind	370	28	2	1	39	75	93	132
Pennsylvania:								
Regular	18,832	2,011	132	15	195	3,971	4,175	8,333
Blind	1,588	6	0	9	29	152	397	995
Puerto Rico	3,644	455	17	0	214	529	1,141	1,288
Rhode Island:								
Regular	868	139	11	5	131	74	375	133
Blind	112	8	0	3	1	4	68	28
South Carolina:								
Regular	5,457	1,702	31	38	281	585	1,710	1,110
Blind	461	64	8	0	149	30	186	24
South Dakota:								
Regular	419	55	0	2	18	37	237	70
Blind	92	20	0	0	12	8	40	12
Tennessee:								
Regular	8,712	1,081	41	18	133	1,685	1,988	3,766
Blind	588	35	8	5	16	33	416	75
Texas:								
Regular	10,467	1,574	32	26	447	1,100	3,769	3,519
Blind	2,243	185	16	11	103	347	450	1,131
Utah	2,149	265	5	7	10	347	594	921
Vermont:								
Regular	774	92	10	1	26	165	276	204
Blind	124	13	3	0	0	7	64	37
Virginia:								
Regular	7,323	993	41	9	914	1,296	2,486	1,584
Blind	147	10	0	3	5	37	40	52
Washington:								
Regular	3,035	407	11	8	146	367	1,218	878
Blind	247	29	15	0	16	31	119	37
West Virginia	9,820	1,305	57	0	779	2,328	2,871	2,480
Wisconsin:								
Regular	5,932	944	101	15	312	746	2,581	1,233
Blind	243	27	4	0	1	46	67	98
Wyoming	815	82	2	6	1	149	152	423

[1] In States which have two agencies, the agency under the State board of vocational education is designated as "regular," and the agency under the State commission or other agency for the blind is designated as "blind."

[2] See footnote 3, table 4.

[3] See footnote 4, table 4.

[4] See footnote 6, table 4.

[5] See footnote 5, table 4.

[6] See footnote 7, table 4.

Source: Form VR:RS-100A, Case Load Summary Report (revised June 1946).

TABLE 6.—*Number of new cases received, by source of referral, during fiscal year ended June 30, 1947*

[Corrected to Sept. 18, 1947]

Sources of referral	Total		State rehabilitation agencies		Agencies for the blind	
	Number	Percent	Number	Percent	Number	Percent
Total	[1] 143,649	100.0	135,809	100.0	7,840	100.0
Educational, total	18,083	12.6	17,634	13.0	449	5.7
Business college	850	.6	850	.6	0	.0
Private school	1,080	.8	1,075	.8	5	.1
Public school	14,863	10.3	14,700	10.9	163	2.1
School for handicapped	1,290	.9	1,009	.7	281	3.5

TABLE 6.—*Number of new cases received, by source of referral, during fiscal year ended June 30, 1947*—Continued

Sources of referral	Total		State rehabilitation agencies		Agencies for the blind	
	Number	Percent	Number	Percent	Number	Percent
Health, total	29,789	20.7	29,342	21.6	447	5.7
Crippled children's agency	6,784	4.7	6,778	5.0	6	.1
State mental hospital	438	.3	437	.3	1	(2)
Tuberculosis sanatorium or association	6,965	4.8	6,962	5.1	3	(2)
Marine hospital or relief station	659	.5	658	.5	1	(2)
Other hospital or clinic	4,262	3.0	4,167	3.1	95	1.2
Other health agency	5,180	3.6	5,006	3.7	174	2.3
Physician	5,501	3.8	5,334	3.9	167	2.1
Insurance, total	14,079	9.8	13,926	10.3	153	2.0
Insurance company	223	.2	222	.2	1	(2)
Bureau of Old-Age and Survivors Insurance	35	(2)	35	(2)	0	.0
State workmen's compensation agency	11,956	8.3	11,814	8.7	142	1.9
U. S. Employees Compensation Commission	1,865	1.3	1,855	1.4	10	.1
Welfare, total	22,006	15.3	18,181	13.4	3,825	48.8
American Red Cross	1,101	.8	1,080	.8	21	.3
Public welfare agency	18,503	12.9	14,906	11.0	3,597	45.8
Private welfare agency	2,226	1.5	2,026	1.5	200	2.6
Community advisory center	176	.1	169	.1	7	.1
Other Government agencies, total	30,885	21.5	29,451	21.6	1,434	18.3
Selective Service System	1,226	.9	1,064	.8	162	2.1
State vocational rehabilitation agency	3,499	2.4	2,617	1.9	882	11.1
State employment service	19,466	13.6	19,210	14.2	256	3.3
Veterans Administration	2,200	1.5	2,133	1.6	67	.9
Maritime Commission	61	(2)	60	(2)	1	(2)
Public official	2,380	1.7	2,360	1.7	20	.3
U. S. Civil Service Commission	66	(2)	65	(2)	1	(2)
Other Government agencies	1,987	1.4	1,942	1.4	45	.6
Miscellaneous, total	28,807	20.1	27,275	20.1	1,532	19.5
Artificial appliance company	1,932	1.3	1,931	1.4	1	(2)
Employer	853	.6	802	.6	51	.7
Labor union	231	.2	177	.1	54	.7
News item, publicity, radio	2,185	1.5	2,133	1.6	52	.7
Other individual	10,801	7.5	10,461	7.7	340	4.3
Self-referred	11,824	8.3	10,873	8.0	951	12.0
Other	981	.7	898	.7	83	1.1

[1] Differs from total of new cases as obtained from Form VR:RS 100A, Case load Summary Report.
[2] Less than 0.05 percent.

Source: Form VR:RS-7, Sources of new cases (revised June 1946).

TABLE 7.—*Number of persons who received various types of services during the fiscal year ended June 30, 1947* [1]

[Corrected to Sept. 18, 1947]

Type of service	Number receiving various types of services		
	Total	State rehabilitation agencies	Commissions for the blind
Diagnosis-counseling:			
Investigation	129, 952	122, 788	7, 164
Referral to other agency	13, 042	12, 432	610
Guidance and planning	85, 874	79, 716	6, 158
Compensation adjustment	1, 274	1, 192	82
Other	535	424	111
Examinations:			
Psychological test(s)	16, 784	16, 006	778
Medical	98, 733	93, 098	5, 635
Psychiatric	3, 418	3, 315	103
Medical services:			
Treatment:			
Medical	5, 642	5, 195	447
Psychiatric	1, 031	996	35
Surgical	8, 349	7, 851	498
Dental	1, 066	966	100
Other	298	278	20
Hospitalization	9, 380	8, 852	528
Convalescent home care	374	359	15
Physiotherapy	705	699	6
Occupational therapy	202	194	8
Work therapy	241	240	1
Home nursing care	94	88	6
Other	220	205	15
Appliances:			
Dental	891	848	43
Artificial limb(s)	5, 276	5, 265	11
Brace(s)	1, 638	1, 635	3
Hearing aid	1, 940	1, 901	39
Glasses or artificial eye	2, 962	2, 561	401
Surgical	851	825	26
Other	471	435	36
Repair of appliance(s)	664	624	40
Training:			
Educational institution	26, 816	25, 801	1, 015
Employment training	5, 441	4, 927	514
Correspondence, extension	2, 220	2, 193	27
Tutorial	3, 139	2, 391	748
Other	258	200	58
Maintenance:			
Physical restoration	1, 219	1, 164	55
Training	11, 697	10, 614	1, 083
Other	146	138	8
Transportation:			
Diagnosis	4, 888	4, 445	443
Physical restoration	3, 056	2, 843	213
Training	4, 766	4, 246	520
Placement	487	426	61
Auxiliary services:			
Training materials	16, 368	15, 719	649
Customary occupational tools and equipment	3, 175	2, 751	424
Occupational licenses and fees	411	392	19

---

[1] The service may have been either provided by the staff of the State Agency, purchased by the State agency or secured without cost to the State Agency, or it may have been received through a combination of any two or all three of the methods. Data are not comparable with data available in previous fiscal years, which included only the number of persons for whom the service was purchased.

Source: Form VR:RS-6, Report of Services (Revised June, 1946).

TABLE 8.—*Number of persons whose cases were closed as employed (rehabilitated), by type of job or occupation at closure, fiscal year ended June 30, 1947* [1]

Type of job or occupation at closure	Number	Percent of total
Total	43,874	100.0
Professional, total	2,302	5.3
Accountants	212	.5
Authors, editors and reporters	89	.2
College teachers	104	.2
Engineers	189	.4
Musicians	137	.3
Social workers	125	.3
Teachers	844	2.0
Other	602	1.4
Semiprofessional, total	1,166	2.7
Commercial artists	74	.2
Draftsmen	239	.5
Laboratory technicians	366	.9
Photographers, commercial	91	.2
Other	396	.9
Managerial and official, total	885	2.0
Hotel and restaurant managers	105	.2
Retail managers	357	.8
Other	423	1.0
Clerical and kindred, total	6,884	15.7
Bookkeepers	800	1.8
Cashiers	156	.4
Clerks, general	2,396	5.5
Messengers and errand boys	182	.4
Office machine operators	272	.6
Pay-roll clerks	130	.3
Secretaries	543	1.2
Shipping and stock clerks	754	1.7
Stenographers and typists	1,084	2.5
Telephone operators	165	.4
Other	402	.9
Sales and kindred, total	2,396	5.5
Canvassers and solicitors	194	.4
Insurance salesmen	182	.4
Vending stand operators	264	.6
Sales clerks	505	1.2
Sales persons	407	.9
Salesmen	536	1.3
Other	308	.7
Service occupations, total	6,158	14.0
Domestic, total	1,322	3.0
Cooks	154	.4
General maids	467	1.0
Housekeepers and housemen	431	1.0
Other	270	.6
Personal, total	2,491	5.7
Attendants, hospital	301	.7
Barbers and beauticians	538	1.2
Hotel and restaurant cooks	200	.5
Kitchen workers	414	.9
Practical nurses	105	.2
Other	933	2.2
Protective, total	889	2.0
Guards and watchmen	559	1.3
Soldiers, sailors, marines	282	.6
Other	48	.1
Building service, total	1,456	3.3
Elevator operators	281	.6
Janitors	669	1.6
Porters	411	.9
Other	95	.2

[1] Estimates based on preliminary tabulation for 38,773 individuals.

TABLE 8.—*Number of persons whose cases were closed as employed (rehabilitated), by type of job or occupation at closure, fiscal ydar ended June 30, 1947*—Continued

Type of job or occupation at closure	Number	Percent of total
Agriculture, fishing, total	3,330	7.6
Farmers	1,851	4.2
Farm hands	1,004	2.3
Gardeners and ground keepers	211	.5
Other	264	.6
Skilled, total	7,500	17.0
Cabinet makers	131	.3
Carpenters	329	.7
Electricians	192	.4
Machinists	306	.7
Mechanics, automobile	564	1.3
Mechanics, maintenance and repair	1,116	2.5
Painters	259	.6
Seamstresses	284	.6
Shoemakers	354	.8
Watch makers, jewelry	696	1.6
Welders	144	.3
Other	3,125	7.2
Semiskilled, total	6,461	14.7
Attendants, filling station	353	.8
Automobile mechanic helpers and assemblers	181	.4
Drill press operators	118	.3
Filers, buffers and polishers of metal	131	.3
Laundry workers	317	.7
Sewing machine operators	271	.6
Taxi drivers, chauffeurs	232	.5
Textile workers	275	.6
Truck drivers	713	1.6
Other	3,870	8.9
Unskilled, total	3,887	8.9
Laborers, construction	344	.8
Laborers, lumber	157	.4
Laborers, mining	188	.4
Laborers in production of:		
Food-products	233	.5
Textiles	217	.5
Lumber products	337	.8
Laborers, textiles	105	.2
Laborers, transportation	201	.5
Other	2,105	4.8
Family workers	2,876	6.6
Housewives	2,590	5.9
Other	286	.7
Not reported	29	(2)

---

[2] Excluded from distribution.

TABLE 9.—*Total expenditures from Federal and State funds for vocational rehabilitation by State Boards of Vocational Education during the fiscal year ended June 30, 1947*

State or Territory	Federal and State funds			Classification of expenditures		
	Total	Federal	State	Administration	Vocational guidance and placement	Purchased services
United States total	[1]$17,496,830.48	$12,639,154.84	$4,857,675.64	$1,219,639.95	$6,510,204.35	$9,766,986.18
Alabama	413, 797. 19	274, 601. 16	139, 196. 03	26, 192. 15	109, 212. 98	278, 392. 06
Arizona	56, 630. 16	41, 842. 68	14, 787. 48	2, 423. 78	24, 631. 42	29, 574. 96
Arkansas	246, 944. 55	184, 581. 31	62, 363. 24	14, 392. 16	107, 825. 91	124, 726. 48
California	1, 164, 649. 99	883, 304. 89	281, 345. 10	93, 559. 45	503, 342. 06	567, 748. 48
Colorado	70, 173. 79	55, 462. 97	14, 710. 82	5, 006. 25	35, 745. 91	29, 421. 63
Connecticut	339, 882. 54	248, 185. 65	91, 696. 89	29, 924. 78	126, 563. 03	183, 394. 73
Delaware	144, 005. 04	106, 989. 67	37, 015. 37	11, 540. 78	58, 223. 53	74, 240. 73
Florida	453, 569. 14	336, 301. 80	117, 267. 34	32, 132. 53	185, 998. 66	235, 437. 95
Georgia	1, 137, 654. 93	831, 951. 27	305, 703. 66	80, 510. 81	445, 736. 80	611, 407. 32
Idaho	38, 124. 79	27, 583. 30	10, 541. 49	2, 502. 58	14, 539. 23	21, 082. 98
Illinois	1, 200, 812. 78	862, 527. 11	338, 285. 67	92, 753. 75	428, 583. 94	679, 475. 09
Indiana	471, 652. 78	296, 116. 23	175, 536. 55	33, 626. 73	86, 952. 95	351, 073. 10
Iowa	186, 329. 65	141, 655. 89	44, 673. 76	11, 769. 97	85, 212. 17	89, 347. 51
Kansas	180, 115. 89	127, 135. 06	52, 980. 83	12, 253. 11	61, 649. 12	106, 213. 66
Kentucky	257, 336. 79	193, 566. 32	63, 770. 47	16, 288. 40	113, 049. 45	127, 998. 94
Louisiana	363, 724. 26	272, 686. 65	91, 037. 61	19, 164. 72	162, 484. 33	182, 075. 21
Maine	111, 040. 55	79, 322. 95	31, 717. 60	7, 977. 62	39, 627. 73	63, 435. 20
Maryland	233, 032. 86	179, 539. 67	53, 493. 19	16, 893. 29	109, 153. 20	106, 986. 37
Massachusetts	271, 084. 37	204, 156. 70	66, 927. 67	22, 879. 48	113, 755. 46	134, 449. 43
Michigan	980, 816. 66	708, 248. 69	272, 567. 97	85, 826. 51	349, 854. 21	545, 135. 94
Minnesota	201, 361. 81	147, 778. 21	53, 583. 60	17, 231. 30	76, 963. 31	107, 167. 20
Mississippi	323, 815. 43	235, 840. 05	87, 975. 38	21, 297. 22	126, 567. 46	175, 950. 75
Missouri	310, 663. 04	217, 800. 52	92, 862. 52	13, 602. 06	111, 335. 95	185, 725. 03
Montana	121, 756. 77	85, 721. 82	36, 034. 95	8, 105. 22	41, 576. 66	72, 074. 89
Nebraska	151, 759. 20	114, 284. 63	37, 474. 57	11, 183. 04	65, 627. 02	74, 949. 14
Nevada	10, 312. 52	7, 687. 64	2, 624. 88	602. 52	4, 460. 24	5, 249. 76
New Hampshire	45, 159. 34	31, 400. 80	13, 758. 54	2, 558. 75	15, 083. 51	27, 517. 08
New Jersey	346, 725. 47	266, 051. 36	80, 674. 11	30, 845. 11	153, 965. 31	161, 915. 05
New Mexico	65, 211. 36	45, 656. 22	19, 555. 14	5, 642. 92	19, 116. 72	40, 451. 72
New York	991, 452. 48	732, 983. 40	258, 469. 08	69, 766. 19	381, 902. 51	539, 783. 78
North Carolina	665, 656. 03	425, 483. 22	240, 172. 81	29, 243. 22	156, 067. 19	480, 345. 62
North Dakota	99, 254. 46	65, 671. 25	33, 583. 21	8, 049. 62	24, 038. 42	67, 166. 42
Ohio	422, 495. 69	289, 609. 90	132, 885. 79	19, 896. 42	136, 827. 69	265, 771. 58
Oklahoma	328, 657. 97	242, 903. 51	85, 754. 46	21, 065. 38	136, 083. 67	171, 508. 92
Oregon	160, 761. 48	112, 124. 20	48, 637. 28	11, 348. 91	50, 664. 62	98, 747. 95
Pennsylvania	1, 186, 764. 26	854, 154. 34	332, 609. 92	72, 910. 85	448, 373. 11	665, 480. 30
Rhode Island	65, 498. 71	44, 555. 54	20, 943. 17	5, 093. 25	18, 168. 72	42, 236. 74
South Carolina	396, 608. 67	283, 885. 09	112, 723. 58	32, 044. 54	139, 116. 98	225, 447. 15
South Dakota	49, 707. 59	32, 031. 41	17, 676. 18	3, 622. 93	10, 732. 30	35, 352. 36
Tennessee	437, 883. 03	326, 173. 32	111, 709. 71	31, 001. 54	183, 462. 08	223, 419. 41
Texas	640, 612. 97	461, 260. 13	179, 352. 84	40, 171. 19	241, 736. 10	358, 705. 68
Utah	106, 435. 35	77, 963. 15	28, 472. 20	6, 012. 20	43, 478. 76	56, 944. 39
Vermont	77, 764. 47	55, 425. 19	22, 339. 28	6, 514. 73	26, 571. 19	44, 678. 55
Virginia	295, 281. 52	205, 235. 66	90, 045. 86	13, 296. 46	101, 893. 34	180, 091. 72
Washington	230, 778. 05	169, 627. 96	61, 150. 09	10, 385. 16	98, 092. 71	122, 300. 18
West Virginia	479, 866. 54	333, 380. 28	146, 486. 26	27, 562. 27	159, 331. 76	292, 972. 51
Wisconsin	452, 713. 03	333, 497. 02	119, 216. 01	35, 028. 15	178, 187. 84	239, 497. 04
Wyoming	43, 297. 91	33, 323. 11	9, 974. 80	2, 334. 64	21, 013. 68	19, 949. 59
Alaska	4, 118. 50	4, 118. 50	------------	1, 469. 09	2, 649. 41	------------
District of Columbia	156, 181. 58	131, 181. 58	25, 000. 00	18, 798. 80	74, 060. 23	63, 322. 55
Hawaii	92, 125. 67	68, 378. 19	23, 747. 48	8, 130. 98	36, 499. 73	47, 494. 96
Puerto Rico	214, 770. 87	148, 207. 67	66, 563. 20	17, 206. 44	64, 414. 04	133, 150. 39

---

[1] Based on reports from States, subject to audit.

TABLE 10.—*Total expenditures from Federal and State funds for vocational rehabilitation of the blind by State commissions or agencies for the blind during the fiscal year ended June 30, 1947*

State or Territory	Federal and State funds			Classification of expenditures		
	Total	Federal	State	Administration	Vocational guidance and placement	Purchased services
United States total	[1]$1,816,513.89	$1,549,778.36	$266,735.53	$198,230.31	$1,084,812.74	$533,470.84
Connecticut	26,428.33	22,877.29	3,551.04	1,583.73	17,742.52	7,102.08
Delaware	18,916.69	15,600.52	3,316.17	2,015.87	10,268.49	6,632.33
Florida	149,879.56	134,202.62	15,676.94	14,764.69	103,761.00	31,353.87
Idaho	15,929.73	13,927.80	2,001.93	818.86	11,107.02	4,003.85
Indiana	43,451.13	32,657.60	10,793.53	4,008.03	17,856.05	21,587.05
Iowa	15,654.41	11,924.21	3,730.20	597.01	7,597.01	7,460.39
Kansas	15,721.37	14,114.39	1,606.98	1,622.12	10,885.30	3,213.95
Louisiana	33,886.89	28,915.57	4,971.32	2,287.17	21,657.08	9,942.64
Maine	14,634.92	12,090.12	2,544.80	941.66	8,603.66	5,089.60
Michigan	136,363.61	112,962.35	23,401.26	16,286.32	73,274.78	46,802.51
Minesota	46,807.51	37,813.94	8,993.57	4,368.30	24,452.08	17,987.13
Mississippi	67,155.99	54,534.17	12,621.82	5,081.46	36,830.90	25,243.63
Missouri	57,941.65	49,785.54	8,156.11	5,090.71	36,538.73	16,312.21
Montana	15,637.66	11,899.91	3,737.75	1,245.42	6,916.74	7,475.50
Nebraska	20,907.21	17,941.87	2,965.34	2,771.02	12,205.52	5,930.67
New Hampshire	7,048.29	5,782.65	1,265.64	803.05	3,713.96	2,531.28
New Jersey	63,683.74	56,536.75	7,146.99	5,068.03	44,321.74	14,293.97
New Mexico	8,678.90	5,714.87	2,964.03	767.00	1,983.85	5,928.05
New York	92,443.58	80,074.91	12,368.67	12,445.64	55,260.60	24,737.34
North Carolina	179,799.00	137,083.55	42,715.45	20,167.30	74,200.81	85,430.89
Ohio	182,999.60	161,707.21	21,292.39	14,427.20	125,987.62	42,584.78
Oregon	20,372.43	14,819.89	5,552.54	2,428.83	6,838.53	11,105.07
Pennsylvania	172,433.03	166,756.34	5,676.69	32,862.44	128,217.22	11,353.37
Rhode Island	19,674.61	15,941.35	3,733.26	2,526.49	9,681.61	7,466.51
South Carolina	30,870.84	27,689.96	3,180.88	2,107.97	22,401.12	6,361.75
South Dakota	20,271.40	16,386.31	3,885.09	2,343.05	10,158.18	7,770.17
Tennessee	56,315.05	46,783.21	9,531.84	4,717.96	32,533.41	19,063.68
Texas	169,359.26	142,981.55	26,377.71	20,097.17	96,506.67	52,755.42
Vermont	15,516.16	11,512.20	4,003.96	987.46	6,520.79	8,007.91
Virginia	15,950.75	13,311.68	2,639.07	1,795.06	8,877.55	5,278.14
Washington	20,282.33	18,827.80	1,454.53	3,170.78	14,202.50	2,909.05
Wisconsin	40,366.90	36,480.14	3,886.76	4,170.50	28,422.88	7,773.52
Hawaii	21,131.36	20,140.09	991.27	3,862.01	15,286.82	1,982.53

---

[1] Based on reports from States, subject to audit.

SECTION EIGHT

EMPLOYEES' COMPENSATION APPEALS BOARD

Effective July 16, 1946, and pursuant to Reorganization Plan No. 2 of 1946, the former United States Employees' Compensation Commission was abolished and its functions were transferred to the Federal Security Administrator. In this reorganization plan it was also provided that the Administrator should establish a board of three persons with authority to hear and, subject to applicable law, make final decision on appeals taken from determinations and awards upon claims of employees of the Federal government and of the District of Columbia. In his message to the Congress, the President indicated that the Appeals Board would be essentially the same as that used in the administration of veterans' pensions and old age and survivors' insurance, as well as those employed by many States in their workmen's compensation programs.

The President's action in establishing the Appeals Board was consistent with an earlier recommendation of the Attorney General's Committee on Administrative Procedure as contained in a monograph embodying the results of investigations made with respect to the Employees' Compensation Commission. Such recommendation included the establishment of some form of appellate procedure under the Employees' Compensation Act, with an appeals group functioning outside of the Commission. The plan adopted in the handling of veterans' pension appeals was cited in the recommendation as an example.

The Appeals Board was duly established by the Administrator, and on September 5, 1946, the Administrator approved regulations governing appeals, in which the jurisdiction of the board was set forth, as well as the procedure in respect of appeals. Following the establishment of the Board and the appointment of the members thereof, its Chairman, as administrative officer, promulgated rules of procedure, which were approved by the Administrator on October 2, 1946.

Under the regulations governing appeals, the jurisdiction of the Board extends to review of questions of law and fact within the purview of the United States Employees' Compensation Act, or extension thereof. The review is made upon the basis of the case record as it exists in the Bureau of Employees' Compensation (the Bureau was established by the Administrator on July 16, 1946, to perform for him the duties and functions of the former Commission transferred to him). The appeals procedure is relatively simple. It involves merely the filing of an application with the Board within 90 days from the date of the issuance of findings of fact and action thereon of the Director, Bureau of Employees' Compensation. The procedure requires the person appealing to specify the error of the Director, and the action in respect to which he appeals. The Board thereafter determines the precise issue which it will hear in the case, and oral hearings are provided so that the appellants, or their representatives, may appear in support of their applications.

The Board's rules include the disposition of applications without hearing, in the event appellants do not wish to be heard orally. Both the appellant and the Director, however, may present oral argument respectively for and against the merits of the appeal, and may submit briefs or supporting memoranda.

After hearing, or after determination without hearing, the Board decides whether error was committed by the Director. In decisions upon the merits of a case the Board may (*a*) remand a case for the completion of further action by the Director, (*b*) deny the application on its merits, or (*c*) reverse the action of the Director. Appeals may also be dismissed for insufficiency.

In whatever disposition of a case, the Board is required by regulation to prepare and file an order, which contains the Board's action upon the case. In all cases in which the decision is upon the merits, the order must be supported and accompanied by a written opinion setting forth the reasons for the action taken. A copy of these papers is transmitted to all parties in interest.

The Board began functioning in the latter part of 1946, after the issuance of its regulations and following the completion of its forms. By the middle of January it had received 20 completed appeals, and then fully launched upon its appointed duties.

During the fiscal year (actually, only one-half of the fiscal year) the Board received 64 completed appeals and at the end of the fiscal year had 32 cases in process toward appeals. During this period the Board decided 29 cases, with the following distribution of cases in respect to reason for the action taken: 4 cases dismissed for insufficiency of application; 9 cases dismissed for lack of jurisdiction; 3 cases remanded to the Director for further action; 8 cases in which the Director's action was affirmed; 1 case in which the Director's action was reversed; and 4 cases in which the appeal was withdrawn.

○